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Contribution by Philippines

**to the CSTD 2026-2027 priority theme on
“Data Governance for Development: From Asymmetry to Equitable Stewardship”**

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PHILIPPINES

Inputs to the 30th Annual Session Priority Theme

Data Governance for Development: From Asymmetry to Equitable Stewardship

- 1. Can you share challenges that your country faces in building and leveraging data capacities, including issues related to infrastructure, ownership and stewardship, free and trusted cross border flows, and benefit-sharing? (Please provide examples and, where possible, quantitative evidence or indicators of these challenges and their impacts)**

The Philippines is currently navigating a critical transition period in its digital transformation. While the national digital economy is expanding rapidly, contributing approximately PHP2.74 trillion Gross Value Added or 9.8 percent of GDP in 2025, the country continues to experience asymmetries that constrain equitable capacity-building and inclusive participation in the digital economy. These constraints persist despite improvements in digital readiness and innovation performance. In the 2025 Global Innovation Index (GII), the Philippines has climbed to the 50th out of 139 economies, reflecting notable gains in the areas of trade, diversification and market scale, knowledge absorption, and knowledge diffusion but also revealed weakness in the area of education. <https://psa.gov.ph/statistics/digital-economy>

- **Fragmented data systems affecting interoperability.** In the current landscape in the Philippines, there are still siloed data systems. Many agencies still use separate databases and information systems with varying levels of maturity and accessing.

An example of this is an agency maintaining approximately 30 information systems supporting its mandate of formulating, funding, and monitoring research and development programs and projects. The systems were separately and independently developed for the different stages in processing the R&D – from project proposal submission to evaluation and until monitoring of approved and funded projects. This is also the same challenge for another agency that generates data across multiple systems and processes, including scholarship applications, scholar monitoring, graduate tracking, regional implementation reports, training programs, science promotion activities, and partner school submissions. This results in varying reporting formats, uneven digital readiness among partner schools and higher education institutions, and limitations in longitudinal tracking of scholars and program beneficiaries.

Experiences from implementing disaster risk reduction and management projects reveal that the challenge extends beyond technology integration. While platforms can be developed, meaningful interoperability requires common data standards, harmonized definitions, clear update protocols, and agreed governance mechanisms among participating agencies.

There is still a gap in integrating information systems and promoting interoperability among sectors. For health and research systems, using data effectively becomes a challenge because the systems are now well connected. At the local level, some offices still rely on paper records or separate systems are not interoperable making it take a long time for information to be gathered and harmonized. Interoperability gaps and inconsistent adoption of standards remain as systemic barriers to effective data integration and real-time decision making. Sharing data across agencies and sectors would be an integral part of development, including in transitioning into smart and sustainable communities and cities.

- **Data ownership concerns.** Having fragmented data systems would also mean various data exchanges among different stakeholders such as the government agencies, the academe, and the private sector. There are instances where data generated from joint projects are controlled by private firms or foreign platforms which sometimes limit the exportation of data.

Another manifestation of this challenge is that while many local government units in the country generate valuable data, these datasets are often fragmented across offices, maintained in different formats, and updated consistently. In many cases, there is no designated data steward responsible for data quality, metadata management, access control, and long-term sustainability. Accessing and exchanging data would require additional bureaucratic processes and security checks.

In the area of health data, ownership and stewardship also remain unclear in practice. Although national frameworks such as the Philippine eHealth Strategy and the National Health Data Repository promote standardized and interoperable systems, in reality many hospitals and LGUs treat data as institutionally owned rather than a shared national resource. This limits data sharing between institutions and reduces the ability of research outputs to be reused at scale for policy and innovation.

- **Uneven digital infrastructure and disparities.** Infrastructure disparities further compound the challenges in fragmented systems and data sharing. Uneven digital infrastructure, particularly in geographically isolated and disadvantaged areas (GIDAs), limits the generation and utilization of quality data. Some cities have adequate connectivity, digital infrastructure, and technical expertise, while others face limitations in internet access, hardware, and skilled personnel. These gaps affect the effective deployment of smart city solutions such as command centers, digital dashboards, citizen engagement platforms, and real-time monitoring systems.

These challenges are also evident among schools, especially in GIDAs and remote areas, which affect the quality and timeliness of data on scholarship access, STEM participation, teacher training needs, and learner outcomes. The challenge is not only to collect data but to ensure that such data are complete, interoperable, protected, and useful for evidence-based decisions on scholarship targeting, STEM pipeline development, and inclusive science education planning. Data should benefit all schools, students, teachers, and school staff.

The benefits of data and digitalization are not yet shared equitably across the population. Rural communities, lower-income households, micro, small, and medium enterprises (MSMEs), and areas with limited digital infrastructure often have fewer opportunities to benefit from data-driven innovation and digital services. For instance, although digital payment transactions surged to PHP13.18 trillion during the first five months of 2026, low public awareness, poor internet connectivity, and limited understanding of quick response (QR) PH interoperability among merchants continue to hinder the broader adoption, particularly in underserved communities.

In 2025, the country launched its first AI-ready hyperscale data center in Santa Rosa, Laguna, a 50 megawatts facility operated by Vitro Inc. (ePLDT), with emerging hubs in Manila, Cebu, Davao, Batangas, and Cavite. While these developments strengthen national digital capacity and attract investments, they also raise strategic questions on data sovereignty, energy demand, equitable access to computing resources, and domestic value capture. Without targeted interventions in digital skills, data literacy, AI capabilities, and MSME upgrading, much of the value generated by the expanding digital economy may continue to accrue disproportionately to large technology players rather than local enterprises and communities.

Until local businesses are fully equipped to harness data analytics through targeted technical upskilling, the lion's share of digital dividends will continue to bypass the local economy, exacerbating the disparity in benefit-sharing.

Moreover, there are technological gaps in existing digital infrastructure being used in agencies. For example, in one agency, nearly all information systems are hosted on physical servers running varying versions of PHP, MySQL, and the Laravel framework, which was only adopted within the agency around 2018. This fragmented technology stack creates significant challenges in data exchange, system integration, and interoperability across applications. Furthermore, as the underlying physical servers approach end-of-life and the software components become outdated or unsupported, the systems that depend on them face increased risks related to reliability, security vulnerabilities, maintenance complexity, and continuity of operations. In many cases, server upgrades necessitate corresponding upgrades to software components and application frameworks, often requiring major system enhancements or redevelopment. These unplanned modernization efforts consume significant development resources and may result in delays or shifts in the priorities and targets of the development team.

<https://www.undp.org/philippines/press-releases/dti-digital-pinatempower-msmes-underserved-communities-through-ict-equipment-handover>
<https://main.pldt.com/article/pbbm-mvp-unveil-philippines-first-ai-ready-hyperscale-data-center>

- **Inequality in connectivity.** While broadband connectivity has improved through programs such as the National Broadband Program and Free Wi-Fi for All, connectivity gaps remain. The 2024 National ICT Household Survey (NICTHS) (Philippine Statistics Authority (PSA) & Department of Information and Communications Technology (DICT)) recorded 48.8 percent household internet access nationally, with the National Capital Region at 68.7 percent compared to the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM) at 27.7 percent, and 58.3 percent of unconnected households.

Among households without internet access, 58.3 percent cited the cost of internet subscriptions, while 37.5 percent cited the cost of equipment as the main reasons for not having an internet connection. Fixed broadband speed has improved from 93.76 Mbps in December 2024 to 109.86 Mbps in March 2026. Despite these improvements, the Philippines remains below the ASEAN average fixed broadband speed of 116.24 Mbps. It also highlights that internet infrastructure remains concentrated in commercially viable urban areas, while rural areas and GIDAs continue to face limited connectivity due to higher deployment costs.

Many local government units, particularly in GIDAs also experience resource and capacity constraints in adopting digital systems and still rely on paper-based reporting or hybrid systems, which delays encoding and increases the likelihood of data errors. Even where electronic medical record (EMR) systems exist, connectivity limitations and lack of trained health informatics personnel constrain their effective use.

With fragmented data systems as elaborated in the previous section, agencies operate independent data systems with various schemas and no shared access to critical infosystems. Internally, within the Department of Science and Technology (DOST), this issue is being addressed by an initiative, called the “Geospatial Analytics and Technology Solutions (GATES) Program”, which shall be implemented through a federated infrastructure for data access and storage.

<https://www.wipo.int/gii-ranking/en/philippines/section/economy-profile>
<https://psa.gov.ph/content/percentage-households-internet-connection-increased-488-percent-2024-two-every-three>
<https://pdp.depdev.gov.ph/philippine-development-plan-2023-2028-midterm-update/>
<https://ictstatistics.dict.gov.ph/wp-content/uploads/2026/05/Philippines-Connectivity-Summary-Statistics.pdf>

- **Insufficient institutional capacity.** Building data capacity requires not only technology investments but also strong governance, institutional readiness, and trust.

Government agencies operating under strict staffing limitations face shortage of dedicated technical personnel for information systems management. Staff are routinely assigned multiple roles and systems simultaneously — an arrangement that is far from ideal for ensuring data quality, system uptime, cybersecurity, and responsive technical support. Multi-tasking across multiple systems (i.e., as many as 30) with a lean team significantly increases the risk of data management lapses and slows response to system issues.

Limited capacity to regularly replace and modernize aging server infrastructure has prolonged the operation of legacy information systems and outdated technology platforms. In the case of one agency, it is often compelled to maintain systems built on older frameworks, software versions, and architectural designs to ensure operational continuity. This challenge is further compounded by legacy systems provided and managed at the national government level, which remain critical for compliance, reporting, and submission of government requirements. To preserve compatibility with these systems and avoid operational disruptions, the agency is often required to retain obsolete server infrastructure and software environments beyond their recommended lifecycle. This dependence on legacy systems constrains the agency's ability to adopt modern technologies and updated frameworks, and to leverage emerging digital solutions. Moreover, significant human and financial resources are consumed by sustaining aging systems, leaving limited capacity for innovation, modernization, and alignment with evolving data governance standards, cybersecurity requirements, and industry best practices.

In addition to human resource and technological capacity, institutional capacity may also be improved through common data standards, clear data ownership, stronger cybersecurity, and sustained capacity-building.

- **Governance framework and funding.** One of the key challenges in the Philippines is establishing a robust data governance framework that enables agencies to securely share, integrate, and leverage data while maintaining accountability, privacy, and trust. While government institutions possess substantial volumes of data, many of these remain difficult to discover, access, integrate, and analyze due to varying levels of digital maturity, incomplete metadata, and the absence of harmonized governance policies, stewardship mechanisms, and data-sharing arrangements.

In the absence of clear policies and agreements, institutions may be reluctant to share data despite the potential benefits for planning, service delivery, and emergency response. Equally important is ensuring that communities and LGUs derive tangible value from the data they provide. Data governance frameworks should support equitable benefit-sharing by translating data into improved public services, faster decision-making, and more responsive local governance.

The Philippines continues to face challenges in enabling trusted cross-border data flows. As the Philippines expands its digital economy and maintains a strong information technology and business process management (IT-BPM) sector, cross-border data transfers have become increasingly important for cloud computing, financial services, research collaboration, artificial intelligence, and international business operations. However, differences in data governance and privacy requirements across jurisdictions, varying data protection regulations, and uneven institutional capacity continue to pose challenges to trusted cross-border data flows.

Another concern is the unpredictable availability of funding to build and maintain data infrastructure required for effective data sharing and use. This affects both core digital systems and operational data collection activities. For example, agencies often lack resources for secure cloud hosting and storage resulting in fragmented on-premise systems that cannot interoperate or scale. Similarly, field data collection and nationwide surveys are frequently delayed or reduced in scope due to budget shortfalls, leading to outdated or incomplete datasets. These financial constraints weaken the country's ability to generate high-quality, timely data and hinder progress toward coherent, trusted, and sustainable data-sharing ecosystems.

<https://www.abs-cbn.com/news/business/2025/9/24/philippines-leads-global-it-bpm-growth-with-sector-seen-hitting-42-b-next-year-1126>
<https://www.philstar.com/the-freeman/cebu-business/2026/01/06/2499092/philippines-it-bpm-industry-eyes-sustained-growth-2026>
<https://www.ipag.org/policy/tech-and-data-governance-cross-border-compliancechallenges-and-strategy/>

- **Cybersecurity and Trust.** Another challenge is that data sharing is not always easy or fully trusted across institutions and even between countries because of different rules, privacy requirements, and technical systems. This makes it hard to compare or combine information for research and policy use.

In the case of educational institutions that handle student, personnel, academic, and operational data, there is a need to balance data use with privacy, security, and responsible stewardship. Monitoring the full education-to-employment pathway of scholars requires reliable data sharing among government, the academic institutions, graduates, employers, and other agencies. However, data privacy requirements, institutional data ownership, and inconsistent update mechanisms can limit timely access to complete information.

Challenges in clarifying data ownership, custodianship, and benefit-sharing further contribute to hesitancy in sharing data and limit the realization of value from integrated datasets. These issues are magnified by constraints in infrastructure and technical capacities, including shortages of expertise in data engineering, geospatial analytics, artificial intelligence, and data governance. These are the same issues highlighted in the previous sections.

In the context of international collaboration, differing legal, policy, and technical requirements can also impede trusted cross-border data flows and the effective use of global scientific and Earth observation datasets. Collectively, these challenges highlight that building a national data ecosystem requires not only investments in digital infrastructure, but also strong data governance, common standards, institutional arrangements, and sustained capacity development to ensure that data can be responsibly shared, transformed into actionable insights, and equitably deliver benefits across stakeholders.

General observations:

The Philippines' experience highlights the need to invest not only in software, connectivity, and digital infrastructure, but also in data stewardship, local technical capacity, interoperability standards, privacy-by-design approaches, and sustainable operational models. Without these foundations, data fragmentation, duplication of effort, delayed decision-making, and limited scalability will continue to constrain the full potential of smart city initiatives. The concerns discussed above are evidence that challenges in data governance are closely interconnected.

There are now ongoing efforts in the government to promote interoperability through the Philippine eGov Platform, such as the implementation of the Philippine Identification System (PhilSys), and adoption of data governance standards across agencies.

Continuous and structured collaboration among national government agencies and external stakeholders through various inter-agency committees and technical working groups are also being observed. These mechanisms help harmonize policies, align methodologies, and coordinate data collection efforts across national government agencies, local governments, academia, and development partners. Regular coordination has improved consistency in administrative data, reduced duplication of surveys, and supported the development of shared standards for interoperability and data stewardship.

This collaborative approach also strengthens the country's ability to engage with international organizations using coherent, comparable datasets. Lastly, continuous implementation of the Community-Based Monitoring System (CBMS), which is an organized technology-based system of collecting, processing, and validating necessary disaggregated data that may be used for local planning, program implementation, and impact monitoring while empowering communities to participate in the process. It involves generation of data at the local level which serves as a basis in targeting households for government programs geared towards poverty alleviation and economic development.

2. How are inequalities embedded in the processes through which data is generated, collected and used in your country? In particular, how do biases in data collection and use, such as gender data gap, affect policymaking, service delivery and development outcomes?

Inequalities in the Philippines are often embedded in the very processes through which data is generated, collected, analyzed, and used. In the country, official data are collected through censuses, sample surveys, administrative records, and monitoring systems and registries. However, these systems do not uniformly capture all population groups. Although the Philippine statistical system has improved, some groups, such as women, persons with disabilities (PWDs), Indigenous Peoples (IPs), informal workers, rural communities, and other marginalized sectors, remain underrepresented, poorly measured, or nearly invisible in statistics. When these groups are excluded, policies and programs meant to help them do not fully address their needs.

a. The Gender Data Gap and Its Consequences

According to the March 2026 Policy Notes of the Philippine Institute for Development Studies (PIDS), Policy Notes, titled *"High Marks, Hidden Barriers: Why Gender Rankings Tell Only Half the Story"*, the Philippines is often seen as a leader in gender equality because of its strong legal protections, high rates of women's education, and the presence of women in many professional and leadership positions. Still, women face ongoing challenges with employment, job security, and access to good economic opportunities.

The policy note explained that this gap persists because, although traditional gender differences have largely decreased, deeper structural and institutional barriers remain. These barriers are intersectional and affect women in different ways depending on disability, location, ethnicity, age, and job status.

The problem is made worse by big gaps in gender-related data. Many important issues, like unpaid care work, gender pay gaps, women's poverty, harassment, land ownership, and climate impacts, are not measured well. Of the 15 national SDG 5 indicators, only 4 have sufficient data. Because of this, many of the challenges women face are not reflected in statistics and are less likely to be addressed in policies and budgets.

Historically, data systems were designed around households or formal employment, often overlooking unpaid care work, informal labor, gender-based violence, and women's experiences in science, technology, and leadership.

If women's experiences are not fully reflected in data, policymakers might overlook both their contributions and the challenges they face. For example:

- Women often take on more unpaid care and household work, but these efforts are usually left out of standard economic data. As a result, policies may not adequately value care work or provide sufficient support for childcare, parental leave, and caregiving services.
- There are still significant differences in workforce participation, with men participating much more than women. Without detailed data that considers gender, employment policies might not address issues like caregiving duties, workplace discrimination, or unequal access to jobs.
- In STEM fields, overall education data may show progress, but it can mask ongoing gender gaps in certain subjects and leadership roles.

The result is that policies may appear gender-neutral but can unintentionally reinforce existing inequalities. In this regard, there is a need for more gender-responsive, intersectional data systems to identify ongoing inequalities, support women in overcoming barriers, and inform policies that promote fair and inclusive development.

It is also noted that while sex information is usually collected, detailed gender-related health data is often missing or not fully used in planning. It is not consistently captured at the local level, and gender-sensitive indicators are not always integrated into decision-support systems. This limits the ability of policymakers to fully understand complex issues such as gender-specific risks.

In project beneficiary reporting, there is inconsistent use of demographic fields across hundreds of funded projects, some sex-disaggregated, not making current gender analysis of public science investment feasible. Similarly, in government STEM education scholarship programs, sex-disaggregated data are generally collected but deeper analysis is still needed to understand gender gaps across specific STEM fields, scholarship levels, leadership tracks, and career progression. Aggregate data may show balanced or strong female participation in some programs, but may mask underrepresentation in fields such as engineering, ICT, data science, artificial intelligence, advanced manufacturing, and other emerging technologies. Similarly, data on disability, ethnicity, income status, school resource levels, and rurality are not always consistently captured or analyzed together.

<https://pidswebs.pids.gov.ph/CDN/document/pidspn2605.pdf>

b. Statistical Invisibility of Marginalized Groups

In addition to gender, many marginalized groups face what researchers call statistical invisibility. National surveys often do not have enough data or detailed questions to reflect the experiences of:

- Indigenous Peoples;
- Persons with disabilities;
- Informal workers;
- Remote rural communities;
- Urban poor populations; and
- Individuals experiencing multiple forms of disadvantage simultaneously.

As defined by the Magna Carta of Women (Republic Act No. 9710), marginalized sectors are those belonging to basic, disadvantaged, or vulnerable groups. They mostly live in poverty and have little or no access to land and other resources, as well as basic social and economic services such as health care, education, water and sanitation, employment and livelihood opportunities, housing security, physical infrastructure, and the justice system.

When these groups are underrepresented in data, inequalities are harder to identify and address. According to recent research by PIDS 2026, the weak representation of marginalized groups in national statistics contributes to persistent disparities in poverty, education, health, and labor outcomes.

For example, data that only categorize individuals by gender may miss how gender intersects with disability, ethnicity, geographic location, or socioeconomic status. A woman with a disability in a remote Indigenous community may face barriers that are entirely different from those experienced by urban women, yet such distinctions are often absent from datasets.

Similar to the case of women and gender data, stronger data is often found in industries that focus on information, such as ICT, while weaker data persists in informal sectors and grassroots initiatives. As a result, priority sectors receive more attention compared to areas lacking sufficient data, which reinforces structural inequalities. The same inequality in generating data and data availability is present in science education. Inequalities are reflected in how data are generated and used across local regions, school types, socioeconomic groups, gender, and geographic contexts. Learners and schools in urban and well-connected areas are often more visible in administrative and digital datasets because they have better access to internet connectivity, application platforms, testing centers, guidance services, and institutional reporting systems. In contrast, learners from rural, remote, Indigenous, low-income, or geographically isolated communities may be underrepresented in data used for scholarship outreach, STEM promotion, and program targeting. In general, well-connected areas are more visible than those in remote communities which influence the priorities and actions being made.

The unique geographic setup of the Philippines as an archipelago and its devolved governance system contribute to inequalities in data. Highly urbanized and well-resourced areas like cities like Metro Manila have relatively better digital systems (e.g., hospitals with electronic records) and trained personnel, while many rural areas often lack stable internet connectivity and rely on manual reporting and may have irregular data submission. This leads to significant underrepresentation of rural populations in national datasets, which in turn affects equity in planning and resource allocation.

In addition, the 2024 National ICT Household Survey shows that only around 30% of individuals aged 65 and above have used the internet and one of the most frequently cited reasons for not using the internet is “Do not know how to use it”. This highlights how limited digital literacy among older persons restricts their ability to access online government services.

Lastly, there is also an underrepresentation of Indigenous Peoples (IPs) in R&D data. Indigenous Peoples may be underrepresented in R&D data and beneficiary coverage. Research projects tend to be designed and implemented in more accessible communities, leaving IP communities — many of whom are stewards of critical biodiversity and traditional knowledge in upland and coastal areas — often outside the reach of formal data collection. This not only results in a knowledge gap about their conditions and needs, but also risks reducing the benefits of publicly funded research and technologies they enjoy.

c. Effects on Policymaking and Service Delivery

When data are biased or incomplete, several problems can arise in policymaking and delivering services:

- Resources may be misallocated. When disadvantaged groups are not fully counted, it may lead to less support for health, education, social protection, or infrastructure for them.

- Programs may not reach the right people. The absence or bias in data limits targeted interventions across different sectors. If programs are based on incomplete data, they can miss their intended beneficiaries. For example, women working in the informal economy might not benefit from labor programs that focus only on formal-sector workers.
- Underrepresentation in priority setting in policies. Inequalities in data create gaps in national datasets, where conditions in well-connected areas are more visible than those in remote communities, influencing how priorities are set in policymaking. This also leads to unevenly informed policymaking, where policies and priorities may disproportionately reflect well-resourced and accessible areas while underrepresenting the needs of remote and disadvantaged communities.
- Bias in technology design. The data biases also influence how technologies are designed and implemented. As a result, development outcomes may not be equitable, affecting economic opportunities and participation in innovation.
- Monitoring and evaluation become limited. Without detailed data, government agencies cannot accurately assess whether their policies are reducing inequalities or whether some groups are being left out.
- Existing biases can be reinforced. Decision-makers usually depend on the data they have. If the data mostly represent dominant groups, policies may end up meeting their needs while overlooking marginalized groups.
- Inconsistent reporting. Evidence from Philippine eHealth system evaluations showed that inconsistent data standards and varying formats across reporting systems further worsened inequality in data quality and usability, particularly during public health emergencies, where multiple reporting formats and delayed updates affected reliability of national analytics.

d. Measures Being Taken to Address Data Inequalities

The Philippines has undertaken several initiatives to improve data inclusivity and gender responsiveness:

- Updated Core Gender and Development (GAD) Indicators. The Philippine Statistics Authority (PSA) adopted an updated framework of Core GAD Indicators to strengthen the production and use of gender statistics across sectors. The framework now covers more than 120 indicators across health, education, labor, governance, violence against women, social protection, and other areas.
- Regular publication of “Women and Men in the Philippines.” The PSA annually publishes sex-disaggregated statistics to support evidence-based policymaking and gender mainstreaming.
- Gender Mainstreaming and the Magna Carta of Women. Government agencies are required to integrate gender analysis into planning, budgeting, monitoring, and evaluation processes. The Philippine Commission on Women (PCW) also promotes evidence-based gender-responsive policies.
- Calls for inclusive and intersectional data systems. Recent PIDS studies recommend treating data systems as critical development infrastructure and improving data collection on disability, ethnicity, geographic location, and other intersecting identities to reduce statistical invisibility.

- Expanded use of administrative and survey data. The PSA continues to improve census, survey, and administrative data systems to generate more granular information for local planning and social inclusion efforts.
- Local-driven campaigns. The gaps in STEM education data affect policymaking and service delivery because scholarship promotion, program design, and capacity-building interventions may not fully reflect the barriers faced by underserved learners and teachers. The government, such as the Department of Science and Technology, addresses these disparities through regional scholarship campaigns, gender and development mainstreaming, targeted STEM promotion activities, support for teacher training, and efforts to strengthen data-driven planning. Moving forward, more intersectional and granular education data are needed to ensure that science education interventions are inclusive and that no potential STEM talent is left behind.
- Standardized reporting and ICT systems. The government is working on standardizing reporting templates, ICT systems, and shared platforms. These initiatives include the Department of Science and Technology's (DOST) "Geospatial Analytics and Technology Solutions (GATES) Program". Starting internally in the Department, the GATES Program aims to harmonize, with the help of AI and geospatial technology, its datasets of the DOST into a single, integrative, and interoperable platform as a decision-making tool for the government. The DOST operates through its 18 attached agencies, 17 regional offices, and 80 provincial science and technology offices. It implements a wide range of programs, activities, and research and development projects that generate vast and valuable datasets.
- Support for smart systems for governance. The Philippines, through DOST, implements the Good Governance through Data Science and Decision Support Systems (GODDESS) that aims to support the development of systems and technologies that address the specific needs of National Government Agencies, Local Government units, academic institutions, and micro-, small-, and medium enterprises (MSMEs). It enables organizations to adopt data-driven governance and evidence-based management using data science, AI, blockchain, and related technologies.

Data are not neutral. How data is generated, collected, and used can either highlight or hide inequality. In the Philippines, gaps in gender data and the lack of representation for marginalized groups can lead to distorted policies, weaker services, and ongoing unequal development. There has been progress toward better gender statistics, more inclusive indicators, and gender mainstreaming, but more work remains. It must be ensured that every sector of society, especially those often overlooked, is visible in the data that guide public decisions. Only with inclusive, detailed, and intersectional data systems can development policies truly keep the promise to "leave no one behind."

To improve data coverage, the Philippine Statistics Authority (PSA) has implemented initiatives to reach underserved communities. The PhilSys on Boat and PhilSys on Wheels bring the PhilSys registration services to remote and hard-to-reach communities using boats and mobile registration vehicles. The PSA has also expanded birth registration through the Birth Registration Assistance Project. As of April 27, 2026, the agency facilitated the registration of 522,731 previously unregistered Filipinos.

The government has also adopted measures to strengthen the use of local-level disaggregated data. The CBMS provides household-level, disaggregated data to identify poor and vulnerable populations, target beneficiaries, support local planning and budgeting, and monitor the impact of development programs. These efforts aim to reduce data inequalities and improve evidence-based policymaking and service delivery.

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- 3. Has your country implemented national strategies, regulatory frameworks or policy instruments to promote equitable and interoperable data governance? What are the lessons learned?**

The Philippines has been implementing various strategies, frameworks, and policy instruments to promote equitable and interoperable data governance through the following:

National Government Agencies' roles

The Civil Service Commission (CSC) sets the standards and requirements governing human resource data management, the Department of Budget and Management (DBM) prescribes frameworks for financial data and reporting, and the Department of Information and Communications Technology (DICT) provides overarching ICT governance standards including data security, systems interoperability, and digital transformation guidelines.

National Policies and Frameworks

- Republic Act 10173 or the Data Privacy Act of 2012 and National Privacy Commission (NPC) Advisory No. 2024-04 govern the privacy layer. It aims to protect the fundamental human right of privacy, of communication while ensuring free flow of information to promote innovation and growth.
(<https://www.officialgazette.gov.ph/2012/08/15/republic-act-no-10173/>)

- Republic Act No. 12254 or the e-Governance Act (September 2025) mandates interoperability and a government data repository with secure Application Programming Interface (APIs). It institutionalizes a whole-of-government approach to digital transformation of the entire Philippine Government. It promotes interoperability and system integration, secure and trusted data sharing, citizen-centered digital services, data-driven governance, and strengthened digital infrastructure and workforce capability. (<https://www.officialgazette.gov.ph/2025/09/05/republic-act-no-12254/>)
- Republic Act no. 12234 or the Konektadong Pinoy Act - aims to promote, develop, and sustain new communication technologies and the best quality of data transmission services at an affordable cost and at standards consistent with the needs and aspirations of the nation. Considering national security concerns, the policy shall also protect public interest by implementing measures to ensure reliable and affordable universal internet access, especially in critical development priorities and areas such as e-governance and basic service delivery, education, health, trade, finance, disaster preparedness, and public safety. (<https://pco.gov.ph/wp-content/uploads/2025/08/20250824-RA-12234-FRM.pdf>)
- Republic Act No. 11055 or the Philippine Identification System (PhilSys) Act Provides a foundational digital identity that enables agencies to authenticate identities, improve the accuracy of beneficiary records, and reduce duplicate or inconsistent entries across government databases. PhilSys has been used to support programs such as the Department of Social Welfare and Development's Pantawid Pamilyang Pilipino Program, Family Development Sessions, and Social Pension Program for Indigent Senior Citizens. (<https://www.officialgazette.gov.ph/2018/08/06/republic-act-no-11055/>; <https://psa.gov.ph/content/psa-national-id-continues-enable-improved-delivery-services-public>; <https://philsys.gov.ph/national-id-authentication-services-for-4ps-beneficiaries-during-family-devt-sessions-set-to-continue/>)
- Republic Act No. 10625 or the Philippine Statistical Act of 2013 designated the Philippine Statistics Authority (PSA) as the central statistical authority responsible for national censuses, surveys, civil registration, and the coordination of the Philippine Statistical System. (https://psa.gov.ph/system/files?file=RA%2010625_IRR.pdf)
- Republic Act no. 11315 or the Community-Based Monitoring System Act - At the local level, the CBMS generates household-level, disaggregated data for poverty analysis, beneficiary identification, local planning and resource allocation. (<https://www.officialgazette.gov.ph/2019/04/17/republic-act-no-11315/>)
- Philippine Development Plan 2023-2028 and its Midterm Update frames digital transformation as a cross-cutting strategy in accelerating digitalization, improving system interoperability and data governance, and enhancing service delivery and accountability. Interoperable data governance in the PDP 2023-2028 is centered on transforming bureaucratic efficiency through unified data standards, secure cross-agency data sharing, and citizen-centric service delivery, shifting away from fragmented, agency-siloed operations. (See Chapters 8 and 14 of the PDP Midterm Update 2023-2028)
- National Innovation Agenda and Strategy Document (NIASD) 2023-2032 positions data and digital infrastructure as core to a competitive innovation ecosystem, framing equitable data governance as essential to ensuring data functions as a public good.
- National AI Strategy for the Philippines (NAIS-PH) - Developed by the Department of Science and Technology (DOST), the NAIS-PH recognizes that responsible AI adoption depends on secure, interoperable, and inclusive data systems. Building on this, the Department of Economy, Planning, and Development (DEPDev) is also currently championing the AI Governance Framework for the Philippines, which is structured around five major pillars namely:

Institutions, Data & Research and Development (R&D), Capabilities, Infrastructure, and Financing, with the data and R&D pillar emphasizing trusted access to quality datasets, stewardship, interoperability, privacy safeguards, and bias mitigation.

- National Cybersecurity Plan 2023-2028 - a comprehensive roadmap designed to protect Philippine institutions, resources, and citizens from the growing threat of cyberattacks.
- National Digital Connectivity Plan - serves as a strategic document for bringing universal and meaningful digital connectivity throughout the country and serves as a linchpin in creating a Digital Philippines.
- The Philippines has several frameworks to improve health data systems. These include the **Universal Health Care Law** implementation mechanisms and the development of the **National Health Data Repository and Philippine Core Data for Interoperability**, which aim to create a unified, standardized, and interoperable national health information system capable of supporting evidence-based policymaking and universal health coverage.

Examples of Initiatives

- The Department of Science and Technology (DOST) currently works on digital transformation and information systems harmonization. It is actively leading a digital transformation agenda of which Information Systems (IS) harmonization is a core activity. This initiative seeks to rationalize, standardize, and where appropriate, unify information systems across the Department and its 18 attached agencies, 17 regional offices, and 80 provincial science and technology offices to reduce redundancy, improve interoperability, and enable department-wide data reporting and decision-making.
- Integrated Human Resource Management System (iHRMS): A Concrete Success in IS Harmonization. The most advanced output of this harmonization effort to date is the Integrated Human Resource Management System (iHRMS), which was initially used by one attached agency of the DOST and has been selected for Department-wide deployment. The rollout follows a phased approach, beginning with the DOST Central Office. The Financial Management System (FMS) is next in line for Department-wide adoption. These milestones represent a significant institutional achievement, establishing a model for collaborative IS governance, starting from a practical example within the Department.
- In the area of R&D project management, the Philippines was able to implement API-based data exchange through the DOST Project Management Information System (DPMIS), which serves as the department's centralized project monitoring platform, with one of the Department's agencies' integrated project management IS (IPMIS). This integration enables real-time, automated data sharing, reducing manual reporting burdens and improving the accuracy and timeliness of R&D portfolio data at the Department level. It represents a practical application of interoperable data governance within a government research funding ecosystem. The agency's IPMIS itself remains partially completed given the complexity and scope of the system, and development is ongoing.

Lessons Learned

- Experience shows that policy compliance is necessary but not sufficient. Effective data governance also requires **clear data ownership, harmonized definitions, interoperable systems, accountable data stewards, and sustained technical capacity**. For example, scholarship data, graduate tracking data, training records, and program monitoring data must be consistently structured if they are to support real-time reporting, policy analysis, and long-term STEM workforce planning.

- A key lesson is that **interoperability should be designed from the start**, rather than addressed only after separate systems have already been developed. Another lesson is that data governance must be understood as both a technical and institutional concern. Systems integration will only succeed if program units, ICT personnel, regional partners, and implementing institutions share common standards and reporting responsibilities.
- **Policy alignment** across multiple oversight bodies is essential but complex — reconciling the data requirements of different national government agencies into coherent, non-conflicting system design requires sustained coordination and clear governance structures. Implementation has yielded important gains, including improved coordination across government agencies, stronger foundations for interoperable digital services, and better targeting of public programs through more reliable identification and local-level data. However, several challenges remain. Interoperability across government information systems is still uneven, data-sharing practices vary across agencies, and many LGUs have limited technical and institutional capacity to fully implement data governance initiatives.
- **Legacy infrastructure remains the most challenging barrier.** The technical complexity of migrating aging systems running heterogeneous versions of PHP, MySQL, and Laravel into interoperable platforms demands resources that are often scarce in government settings.
- **Phased implementation** is more sustainable than big-bang deployment — the phased rollout of the integrated HRMS across the DOST demonstrates that incremental, well-sequenced deployment reduces disruption and builds institutional confidence. Finally, interoperability requires both technical and institutional investment. The API integration succeeded not just because of technical development but because of the institutional commitment at the agencies concerned to standardize data exchange protocols.
- While there are ongoing efforts to strengthen data governance, various challenges persist such as data duplication, unknown sources of truths, multiple data sources, incomplete data, outdated information, and ambiguous data responsibility, and ownership. A **comprehensive policy serving as a framework** will help reduce these issues, leading to a more equitable and interoperable data governance system.
- **Long-term support** for projects and initiatives are crucial. In the health sector, some digital health projects work well during pilot testing but stop after funding ends. This shows that long-term support is needed, not just short-term projects.
- **Inclusivity and multistakeholder collaboration** would significantly contribute to the success of data governance projects. Successful cases, such as the country's RxBox tools, the portable telehealth device that could monitor and report the vital signs of a patient and act as a diagnostic kit and telemedicine tool remotely, demonstrate that when digital tools are co-developed with local health workers and aligned with existing workflows, adoption and sustainability improve significantly.
- Technology solutions must be accompanied by **institutional reforms, capacity building, and sustained inter-agency coordination**. While interoperability initiatives have demonstrated improvements in service delivery, challenges remain in harmonizing data standards, modernizing legacy systems, and strengthening technical capacities across government agencies.

Other References:

- Philippine Institute for Development Studies, Policy Notes. No. 2026-05 (March 2026), High Marks, Hidden Barriers: Why Gender Rankings Tell Only Half the Story. Jose Ramon G. Albert, Connie B. Dacuycuy, Agnes R. Quisumbing, Lovelaine B. Basillote, Deanne Lorraine D. Cabalfin, Anna Rita P. Vargas, Paola Ellaine D. Luzon, and Mohammad A. Mahmoud;
 - Philippine Commission on Women, Reports on the Status of Filipino Women 2025 delivered by Chairperson Ermelita V. Valdeavilla during the 2025 Women's Month Kick-Off Celebration
- 4. Can you share your country's experience in reducing asymmetries and promoting more equitable data stewardship in development sectors such as public services, education, health and agriculture?**

Public Service

- In public service, the Philippines has taken significant steps to address data gaps and expand access to digital government services. As part of these efforts, the Department of Information and Communications Technology (DICT), in collaboration with other national government agencies, spearheaded the development of the **E-Gov PH Super App**, which consolidates government services into a single citizen-centered platform, making public transactions more accessible, convenient, and efficient nationwide. (<https://e.gov.ph/>).
- The government has also strengthened foundational data systems to improve service delivery and beneficiary targeting. The PhilSys provides a national digital identity that simplifies identity verification and access to public and private services. Meanwhile, the CBMS generates household-level, disaggregated data to support poverty analysis, beneficiary targeting, local planning, and resource allocation. The eGovPH App further promotes interoperability by providing a single digital portal for government services and integrating information systems across agencies.⁵⁶ As of June 2025, the DICT reported that more than 1,000 government systems had been integrated into the application. These initiatives have reduced duplicate records, streamlined access to services, and improved the government's ability to identify eligible beneficiaries. However, their effectiveness depends on data quality, privacy safeguards, sustained interagency coordination, and alternative service channels for individuals with limited digital access. (<https://philsys.gov.ph/>, <https://psa.gov.ph/cbms>, <https://psa.gov.ph/cbms>, https://pco.gov.ph/news_releases/egov-ph-app-has-more-than-a-thousand-government-systems-integrated-dict/, <https://e.gov.ph/>)

Education

- The Department of Science and Technology (DOST) contributes to improving access to STEM education. Through the Science and Technology Academic and Research-Based Openly Operated KioskS (**STARBOOKS**), which are a free stand-alone supplemental tool for research, teaching, and learning needs of users even without the internet, Filipinos can have access to science, technology, and innovation (STI) information. STARBOOKS contains hundreds of thousands of digitized science and technology resources in text, audio, and video formats housed in specially designed "pods." This digital library is also intended to be highly transportable to reach the furthest locations in the Philippines including the off-grid sites, conflict areas, and the remotest indigenous communities. (<https://www.starbooks.ph/>)
- The DICT has worked with partner agencies to promote equitable data stewardship and reduce gaps in access to medical services. DICT supports the deployment of telemedicine platforms and AI-enabled diagnostics, helping extend healthcare to underserved and remote communities.

Collaboration with the Department of Health and other stakeholders has shown that shared data systems, interoperability, and localized solutions are essential for success.

<https://businessmirror.com.ph/2025/10/16/mwell-and-dict-sign-memorandum-of-understanding-to-advance-universal-healthcare/>

- The DOST, through its DOST-Science Education Institute (DOST-SEI) and DOST-Philippine Science High School System (DOST-PSHS System), further contributes to reducing data asymmetries in education by generating and using data to identify gaps in STEM access, scholarship participation, teacher capacity, and science promotion reach. Scholarship application and award data, training participation records, regional implementation reports, and program monitoring information help better understand where support is needed and how science education interventions can be targeted more effectively. The DOST's scholarship programs help address inequities by expanding opportunities for talented students from different regions and socioeconomic backgrounds to pursue STEM education. Data from these programs support decisions on outreach, allocation, monitoring, and policy refinement. Similarly, teacher training and science promotion initiatives generate information on capacity needs across schools and regions, helping the government design more responsive interventions. However, data asymmetries remain where some regions, schools, or learner groups are less visible due to limited connectivity, weaker reporting systems, or lack of standardized data collection. There is also a continuing need to improve graduate tracking and outcome monitoring to better understand the long-term contribution of DOST scholars to the national STEM workforce. The remaining challenge is to ensure that data collected from students, scholars, teachers, and partner institutions are translated into better services, fairer access, and stronger support for underserved communities.

Agriculture

- The DOST, through its Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (DOST-PCAARRD), maintains a dedicated online portal and e-library that provides public access to selected research outputs, including publications, completed project reports, technology guides, and other knowledge resources. These platforms serve as critical mechanisms for disseminating publicly funded research and bridging the gap between knowledge generators and end-users such as farmers, extension workers, policymakers, researchers, and the general public. By making research outputs more accessible, the agency promotes knowledge sharing, evidence-based decision-making, technology adoption, and innovation within the Agriculture, Aquatic, and Natural Resources (AANR) sectors. Despite these efforts, open access to research outputs remains limited. Not all knowledge products can be made publicly available due to intellectual property rights, confidentiality agreements, data sensitivity, and other legal or policy considerations.

In addition, the absence of a comprehensive framework for categorizing, managing, and sharing research outputs may further limit the discoverability and accessibility of valuable knowledge resources. Expanding the availability of open-access research outputs while ensuring appropriate protection of intellectual property, sensitive information, and researchers' rights remains an ongoing challenge for the organization. Beyond direct technology transfer, the DOST actively uses R&D data as a basis for national agriculture and natural resources research policy. Research findings from DOST-PCAARRD-funded projects feed into policy briefs and recommendations submitted to relevant government agencies contributing to evidence-based policymaking across all three sectors.

This role as a knowledge broker between the research community and policymakers is central to the agency's mandate and represents an important dimension of equitable data stewardship ensuring that publicly funded research data serves public policy, not just academic output metrics.

- The DICT has worked with partner agencies to apply digital and AI-enabled tools that help reduce data gaps and support farmers. DICT collaborates with the Department of Agriculture and research institutions and has supported pilot projects that use AI for crop disease detection, climate monitoring, and farmer advisories. These initiatives aim to provide timely, localized information to rural communities that often face connectivity and resource challenges. DICT's role for collaboration is evident on connectivity, interoperability, and governance backbone, ensuring rural communities can access these AI tools.

Health

- Efforts to reduce asymmetries in data stewardship are now visible in the health sector, where the DOST-Philippine Council for Health Research and Development (PCHRD) - supported projects, such as telehealth systems and community-based health information systems, have improved access to health services in remote areas. These systems allow rural health units to transmit data more efficiently and enable faster access to patient information, reducing delays in diagnosis and treatment.

Examples:

- o Community Health Information Tracking System (CHITS) - one of the six Philhealth-certified electronic medical record (EMR) systems being used in Rural Health Unit (RHU) level, reduces patient's waiting time and improves monitoring of patient care through efficient data encoding and records retrieval. To support the efforts in digitizing health records, the entire system is designed to follow the workflow of primary healthcare facilities including the paper-based documentation process. This setup will make the process easier for health workers or users to learn and adopt the system with minimal supervision needed.
<https://www.pchrd.dost.gov.ph/heartnovation/community-health-information-tracking-system-chits/>
 - o RxBox - RxBox is a biomedical device capable of measuring a patient's vital signs, such as temperature, blood pressure, heart rate, oxygen saturation, uterine contractions, and electrocardiogram readings. With its user-friendly interface and high-resolution display, patients can easily monitor their health and share this information with their healthcare provider, enabling prompt medical interventions and reducing the need for in-person visits.
[Dosts-roll-out-of-1000-rxbox-units-to-ph-healthcare-facilities-almost-complete](#)
- The DICT has worked with partner agencies to promote equitable data stewardship and reduce gaps in access to medical services. DICT supports the deployment of telemedicine platforms and AI-enabled diagnostics, helping extend healthcare to underserved and remote communities. Collaboration with the Department of Health and other stakeholders has shown that shared data systems, interoperability, and localized solutions are essential for success.
[\(https://businessmirror.com.ph/2025/10/16/mwell-and-dict-sign-memorandum-of-understanding-to-advance-universal-healthcare/\)](https://businessmirror.com.ph/2025/10/16/mwell-and-dict-sign-memorandum-of-understanding-to-advance-universal-healthcare/)
- However, it is observed that asymmetries persist because adoption is uneven. Urban hospitals continue to benefit from more advanced systems and stronger technical capacity, while rural facilities often struggle with basic digital infrastructure.

General

In general, the DOST is also implementing the Geospatial Analytics and Technology Solutions (GATES) Program, which harmonizes the Department's geospatial datasets and harnesses geospatial analytics and AI for science-based planning, research, and innovation. The initiative marks an important step in the Department's efforts to break down data silos and strengthen integration, interoperability, and collaboration across DOST agencies and offices.

It seeks to establish clear governance structures to ensure data quality, interoperability, security, and accountability across the Department. By strengthening its data governance practices, the Department aims to generate greater value from its datasets, support evidence-based decision-making, and enable more responsive science and technology services for the Filipino people.

5. What mechanisms or institutional arrangements are in place in your country to foster collaboration around data governance for development among different stakeholders (e.g., university-industry, private-public, or multi-stakeholder initiatives)?

The Philippines fosters collaboration on data governance for development through several institutional mechanisms that support data sharing, transparency, and multi-stakeholder engagement: Data Governance for Development From Asymmetry to Equitable Stewardship.

Institutional Arrangements

- **National Innovation Council:** Provides a whole-of-society platform for advancing innovation policy, including the use and promotion of digital and emerging technologies to improve productivity, and strengthen public service delivery, among others. The Council also steers innovation governance by deepening the collaboration among the government, academe, industry, and civil society. ([republic-act-no-11293](#))
- **Philippine Open Government Partnership (OGP):** A multi-stakeholder partnership composed of government and civil society organizations (CSOs). It oversees the implementation of the country's OGP commitments and provides a structured mechanism for stakeholder participation in transparency and accountability initiatives. (<https://ogp.dbm.gov.ph/index.php/about-us>)
- **Regional R&D Consortia:** There are several Regional R&D Consortia focusing on different areas of specialization such as agriculture, aquatic, and natural resources for DOST-PCAARRD Regional R&D Consortia and industry, energy, and emerging technologies for DOST-PCIEERD Regional R&D Consortia.
 - For health, the Republic Act 10532 or the Philippine National Health Research System Act of 2013 was signed into law. The PNHRS is an integrated national framework for health research in the country. It is a convergence strategy that aims to promote cooperation and integration of all health research efforts and stakeholders in the country to ensure that research contributes to evidence-informed health policies and actions.
 - The cornerstone of DOST-PCAARRD's multi-stakeholder collaboration model is its network of regional R&D consortia, hosted by State Universities and Colleges (SUCs) across the Philippines. The consortia serves as the primary institutional vehicle through which PCAARRD coordinates, funds, and monitors R&D activities in agriculture, aquatic, and natural resources at the regional level.
 - The DOST-PCIEERD Regional R&D Consortia, a network of academic institutions, government agencies and private small and medium industries in the regions. The aim is to promote closer collaboration, catalyze, coordinate and integrate R&D activities in industry, energy and emerging technologies that will upgrade regional research capacity and respond to the needs of the local industries.
(<https://www.healthresearch.ph/index.php/about-pnhrs#ab7>;
<https://elibrary.judiciary.gov.ph/thebookshelf/showdocs/10/47269>;
<https://pcieerd.dost.gov.ph/wp-content/uploads/2023/09/Consortia.pdf>)

- **Regional Development Councils (RDCs):** Convene NGAs, LGUs, private sector representatives, academe, and CSOs to align regional priorities and coordinate development interventions. The RDC plays a strategic role in strengthening regional data-sharing, harmonizing local and national datasets, improving data-driven planning, and supporting innovation and digital transformation initiatives. (<https://www.officialgazette.gov.ph/2025/01/28/executive-order-no-82-s-2025/>)
- In terms of education, the government also collaborates with higher education institutions, schools, and other academic institutions. The Department of Science and Technology (DOST) has two educational institutions, the DOST-Science Education Institution and the DOST-Philippine Science High School System. The DOST-SEI has various programs especially for science education from undergraduate to postgraduate while the DOST-PSHS System is for secondary education focused on STEM. Collaborations are implemented for joint scholarship, teacher training, student exchange programs, and STEM promotion initiatives. These partnerships serve as important mechanisms for data generation, sharing, validation, and use in support of education planning and human resource development. Interagency collaboration with education, labor, statistics, and science and technology institutions can further strengthen graduate tracking, STEM workforce analysis, and evidence-based policy development.

Portals/Mechanisms

- **Open Data Philippines (ODPH) Portal:** Serves as a central repository of government data across agencies, covering sectors such as demographics, health, education, finance, and infrastructure. It enables public access to government datasets. (<https://data.gov.ph/index/home>)
- **Electronic Freedom of Information (eFOI) Portal:** Provides a formal mechanism for citizens to request information on government transactions and operations, subject to limitations under the Data Privacy Act and national security considerations. (<https://www.foi.gov.ph/>)
- **OpenSTAT:** An open data platform powered by PC-Axis, a user-friendly application for presenting statistical data and metadata coupled with application programming interface and visualization features. This system allows the PSA to share data under an open data license where data can be freely used, re-used, and redistributed by anyone without any restrictions other than proper source of attribution. (<https://openstat.psa.gov.ph/>)
- **The Good Governance through Data Science and Decision Support System (GODDESS)** is originally a program of the DOST-Philippine Council for Industry, Energy, and Emerging Technologies Research and Development (DOST-PCIEERD) open to learners or participants of Project SPARTA (Smarter Philippines through Data Analytics Research, Training and Adoption). However, after completion of SPARTA, it was opened to all researchers with data science and data analytics background. Its purpose is to demonstrate the knowledge and skills gained from data science training, specifically for the development of systems and technologies geared towards enabling Local Government Units (LGUs), National Government Agencies (NGAs), MSMEs to adapt data-driven governance and evidence-based management. The program supports the development of systems and technologies for good governance, leveraging data science and decision support systems and it also includes the use of Artificial Intelligence, blockchain and other technologies for data governance. (<https://pcieerd.dost.gov.ph/work-with-us/call-for-proposals-for-the-pcieerd-capability-development-program-for-2026-funding/>; <https://www.southernleytestateu.edu.ph/index.php/en/events/2348-slsu-inks-moa-with-sogod-lgu-pnp-for-dost-pcieerd-funded-project-under-goddess-program>)

- **Regulatory sandboxes:** Provide controlled environments where regulators, government agencies, private sector actors, startups, academe, and researchers can test new technologies, governance models, and data-sharing arrangements while managing risks related to privacy, cybersecurity, and public trust. In the Philippines, the Bangko Sentral ng Pilipinas has implemented regulatory sandbox approaches in digital finance and fintech innovation, allowing regulators and market participants to experiment with emerging technologies under supervised conditions. DEPDev, through the NIC, has been advancing policy discussions on regulatory sandbox mechanisms as part of broader innovation governance reforms. For emerging technologies such as AI, sandbox approaches can enable the testing of governance frameworks, ethical safeguards, and data-sharing protocols before large-scale implementation, thereby reducing regulatory uncertainty while supporting responsible innovation.

(<https://www.bsp.gov.ph/Regulations/Issuances/2022/1153.pdf>;

https://www.apec.org/docs/default-source/publications/2021/3/FinTech-regulatory-sandboxes-capacity-building-summary-report/221_ec_FinTech-regulatory-sandboxes-capacity-building-summary-report.pdf)

6. **What major bilateral, regional, or international partnership has your country engaged in to foster equitable and interoperable data governance? (Please describe the benefits of participating in these partnerships, as well as any challenges related to coordination, capacity, trust, interoperability or benefit-sharing)**

The Philippines is actively engaged in international partnerships aimed at fostering equitable and interoperable data governance.

- **United Nations' CSTD Working Group on Data Governance.** The Philippines was an active member of the CSTD Bureau that helped establish the multi-stakeholder Working Group on Data Governance at All Levels, following the request from the UN General Assembly within the Pact for the Future/Global Digital Compact. The Philippines is also a member of the Working Group on Data Governance, which focuses on fostering inclusive dialogue to develop equitable, safe, and interoperable data governance, aiming to produce a report with recommendations by the 81st UN General Assembly session.
(<https://unctad.org/topic/commission-on-science-and-technology-for-development/working-group-on-data-governance>)
- **UNESCO Recommendation on the Ethics of AI.** Data is interconnected with various emerging technologies, including AI. The Recommendation on the Ethics of AI recognizes that the AI system is dependent on the quality, representativeness, and handling of the data used to train and operate it. The Recommendation also emphasizes the value of human oversight in AI and data governance. One of its ten core principles also include awareness and literacy noting that public understanding of AI and data should be promoted through open and accessible education, civic engagement, digital skills and AI ethics training, media, and information literacy. The Philippines has collaborated with UNESCO for the implementation of the Readiness Assessment Methodology (RAM). In line with this, the government through the Department of Science and Technology (DOST) partnered again with UNESCO in conducting an AI Literacy Training for Civil Servants, which pilot session was held in November 2025 and followed by a series of training sessions for the Philippine Government agencies in April 2026.
(<https://dost.gov.ph/knowledge-resources/news/86-2025-news/4267-dost-partners-with-unesco-for-ai-literacy-training.html>)
- **UN Global Digital Compact:** Calls for strengthening international data governance and supporting interoperable national data governance frameworks, while also advancing responsible AI governance and inclusive digital cooperation. The Philippines has emphasized in UN discussions that governance frameworks for AI and emerging technologies should account for the needs of developing countries, including the need to prevent misuse while ensuring that technological benefits are broadly shared.

- Association of Southeast Asian Nations (ASEAN) Data Management Framework (DMF):** On January 22, 2021, ASEAN approved the DMF and the Model Contractual Clauses (MCC) to guide businesses and organizations in establishing data governance systems and standardized terms and conditions for cross-border personal data transfers. The DMF provides a structured approach to data governance, while the MCCs reduce legal and compliance costs by offering template clauses for data-sharing agreements. In the Philippines, the National Privacy Commission (NPC) issued Advisory No. 2021-02 on June 28, 2021 to guide the adoption of these instruments.
https://asean.org/wp-content/uploads/2-ASEAN-Data-Management-Framework_Final.pdf<https://www.pdpc.gov.sg/organisations/resources/guidance-by-topic/asean-data-management-framework-and-model-contractual-clauses-on-cross-border-data-flows> https://privacy.gov.ph/wp-content/uploads/2021/06/Advisory-ASEAN-MCC-DMF_FINAL-signed.pdf
- ASEAN Digital Economy Framework Agreement (DEFA):** The ASEAN DEFA is the world's first region-wide digital economy agreement to harmonize digital trade rules, enable trusted cross-border data flows, and establish a coherent regulatory framework for paperless trading, e-commerce, cybersecurity, digital identity, and digital payments. On May 27-29, 2026, ASEAN Senior Economic Officials resolved the remaining negotiation issues of the agreement during the 57th ASEAN Senior Economic Officials Meeting in Manila, Philippines, marking the conclusion of negotiations and advancing ASEAN's goal of a digitally integrated and interoperable regional economy.
<https://www.weforum.org/stories/2025/05/asean-digital-economy-framework-agreement-a-gamechanger/>;
<https://asean.org/statement-of-the-chairperson-of-the-asean-senior-economic-officials-seom-on-the-conclusion-of-asean-defa-negotiations/>
- Asia-Pacific Economic Cooperation (APEC) Global Cross-Border Privacy Rules (CBPR) System:** Established by the APEC in 2011, the system is a voluntary, enforceable, and accountability-based certification scheme based on the APEC Privacy Framework that facilitates the responsible transfer of personal data across borders. The Philippines formally joined the CBPR system in 2020 to aid Filipino businesses in entering larger markets within the Asia-Pacific by minimizing dataflow barriers and adopting data privacy standards consistent with other jurisdictions. In 2025, the NPC hosted the Global CBPR Forum Fall Workshop, which discussed cross-border data flows and privacy interoperability. The discussions also included the alignment of the CBPR system with global standards such as the European Union General Data Protection Regulation (GDPR) and International Organization for Standardization (ISO) frameworks to make it easier for consumers and businesses to trust digital exchanges across regions. <https://www.globalcbpr.org/wp-content/uploads/Global-CBPR-Framework-2023.pdf>
- Memorandum of Cooperation between NPC and Japan's Personal Information Protection Commission:** Signed on June 1, 2026 in Tokyo, Japan, the partnership covers information-sharing and mutual assistance in privacy investigations, exchange of best practices and experiences on data protection policies and privacy-enhancing technologies, joint research initiatives, capacity-building activities, training and education programs, and other mutually agreed undertaking aimed at advancing data protection and privacy.
<https://privacy.gov.ph/japan-and-the-philippines-strengthen-data-privacy-protection-cooperation/>
- Partnership with the Korea International Cooperation Agency (KOICA) for the development of the Criminal Investigation Data Management and Analysis System:** The Department of the Interior and Local Government (DILG), the Philippine National Police (PNP), and KOICA have signed the Records of Discussion, committing to the development of a unified and data-driven investigative system to strengthen police operational efficiency, coordination, and crime analysis capabilities.
<https://www.dilg.gov.ph/news/DILG-PNP-partner-with-South-Korea-for-upgraded-crime-data-system/NC-2026-1156>
- World Bank:** The Philippines partners with the World Bank through the Philippine Digital Infrastructure Project, which supports major connectivity efforts such as the National Fiber Backbone. This helps expand internet access and improve digital services across the country, especially in underserved areas.

- **International Telecommunication Union (ITU):** The country actively participates in ITU initiatives on ICT measurement and benchmarking. This helps improve how digital development is tracked and supports better understanding of gaps in connectivity and access, including at the household level. As a member of the ITU Council, the Philippines reaffirmed its commitment at the 2026 Session of the ITU Council to inclusive and forward-looking digital development by actively participating in discussions where key global ICT priorities, policies, and strategies are shaped.
<https://ictstatistics.dict.gov.ph/the-philippines-at-the-2026-session-of-the-itu-council-advancing-regional-voices-in-global-ict-governance/>
- **Global Privacy Assembly (GPA) -** Through the National Privacy Commission (NPC), the Philippines engages in global cooperation on data privacy. This includes contributing to international discussions and guidance on emerging issues such as privacy protection in artificial intelligence and digital content.

These partnerships facilitate knowledge exchange, capacity building, and policymaking. These mechanisms strengthen interoperable knowledge-sharing systems and evidence-based decision-support tools, improving data accessibility and coordination across research and implementing institutions. They help strengthen digital infrastructure through international funding and technical support, align Philippine systems with global standards, and improve policy development through shared international practices. However, challenges remain in harmonizing standards, ensuring data trust, and sustaining technical capacities. In multilateral discussions, issues on having a unified framework for standards arise due to differing positions, security measures, institutional policies, technical capacities, data management practices, and local contexts and considerations.

7. How can international cooperation strengthen equitable and interoperable data governance to ensure that data contributes to shared prosperity and sustainable development? In what ways can the UN CSTD contribute to this effort?

International cooperation is important in building fair, secure, and interoperable data governance systems that allow countries to share and use data responsibly for development. International standards and policies also ensure not just equitable access to resources that strengthen data governance systems but also protect the sources and owners of data by safeguarding their rights through regulations.

In addition, international cooperation can strengthen equitable and interoperable data governance by aligning national digital transformation with global standards on data sharing and responsible data use. This is particularly relevant as the country implements the E-Governance Act. International cooperation can support this agenda through technical assistance, shared standards, capacity-building initiatives, and platforms for mutual learning, particularly for NGAs and LGUs with uneven digital infrastructure and data management capacities. By strengthening local capacities and fostering the integration of global and local knowledge systems, international cooperation enables countries to more effectively generate and use data. This contributes to more inclusive innovation and ensures that data can support the achievement of the Sustainable Development Goals (SDGs).

The CSTD can contribute to these efforts by continuously being an avenue for meaningful exchanges among Member States and other stakeholders, including observers. The CSTD can also further facilitate collaborations among its Members and other organizations to implement concrete initiatives that will translate into equitable and interoperable data governance systems, principles and policies. These activities can be in the forms of capacity building, infrastructure development, knowledge sharing, and policymaking. The CSTD's role in following up on the outcomes of the World Summit on the Information Society positions it to facilitate such initiatives.

The CSTD's Working Group on Data Governance, where the Philippines is a member of, is a great leap towards this vision. Having shared principles and global frameworks would benefit the development of aligned policies.