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"Data Governance for Development: From Asymmetry to Equitable Stewardship"

CSTD – Data Governance

ESCWA Input (2026)

1. What key challenges do countries face in building and leveraging data capacities, including infrastructure, ownership and stewardship, free and trusted cross-border data flows, interoperability and benefit-sharing? (Please provide examples and, where possible, quantitative evidence or indicators of these challenges and their impacts)

Countries in the Arab region face a layered set of challenges that compound one another.

Infrastructure and the persistent divide. Physical access has expanded markedly, but availability has not translated into equitable, meaningful connectivity. In the Arab region, around 55% of individuals had Internet access in 2019 to reach 70% in 2025. The regional aggregate also masks a wide internal spread — Gulf states approach universal connectivity while conflict-affected and least-developed countries lag far behind. The United Arab Emirates, for instance, achieved a score of 98.8 out of 100 in the ITU's ICT Development Index 2026[1], including a perfect score of 100 for universal connectivity. On the backbone side, the region lags other regions in fibre-optic deployment, with investment stagnating since 2018, and there is heavy reliance on a small number of submarine cable routes — a structural vulnerability for trusted data flows.

Digital government service maturity. Despite steady progress, significant disparities persist in the maturity of electronic and mobile government services across the Arab region. Gaps in service availability and sophistication, service usage and user satisfaction, and public outreach limit the provision of seamless, inclusive and user-centred public services. Through the Government Electronic and Mobile Services (GEMS) Maturity Index, ESCWA assesses national and regional performance, benchmarks progress and identifies priority areas for evidence-based improvements in digital service delivery. The regional average increased from 43 per cent in 2023 to 45 per cent in 2024[2].

Digital exclusion. Populations facing barriers to digital technologies and services — including persons with disabilities, older persons and women — are underrepresented in digital and administrative datasets, limiting policymakers' ability to design inclusive, evidence-based digital policies. Through the Arab Digital Inclusion Platform (ADIP), ESCWA promotes digital inclusion as a foundation for equitable and inclusive access to all digital resources.

Interoperability and benefit-sharing. Data is often siloed across ministries and produced to incompatible standards, limiting reuse. ESCWA through the Arab Development Portal (ADP)[3] strives to address this by bringing together data from UN agencies, member States and partners on the basis of sound data governance mechanisms, contextualizing it to support evidence-based policymaking using AI, geospatial and big-data tools.

[1] https://www.itu.int/itu-d/reports/statistics/idi2026/
[2] https://www.unescwa.org/publications/government-electronic-mobile-services-gems-maturity-index-2024
[3] https://data.unescwa.org/datacatalog

Cross-border flows. Trusted cross-border data movement is constrained less by a single barrier than by emerging regulatory fragmentation. Several countries have adopted comprehensive but divergent regimes (Saudi Arabia's PDPL under SDAIA, the UAE's Federal PDPL of 2021), each with its own transfer mechanisms and localization requirements, while others have no framework at all. The result is uneven ground for regional interoperability.

Fragmented statistical systems and financing gaps. Administrative data are often produced by multiple ministries using different standards, classifications and information systems with limited exchange mechanisms, leading to duplicated collection, inconsistent official statistics and delays in national and international SDG reporting. Many administrative systems were designed for service delivery rather than statistical production, so quality, completeness, timeliness and metadata documentation require substantial improvement before such data can feed official statistics. Financing for statistical systems, technology, cybersecurity and skilled personnel remains insufficient and unpredictable, especially in conflict-affected and least developed Arab countries. ESCWA's MARS (Monitoring Application for Reporting on SDGs) platform[4] aims to streamline data flows between national data providers, national statistical offices (NSOs) and UN custodian agencies, and its promotion of the SDMX standard has shown that internationally recognized standards significantly improve automated data exchange, metadata harmonization and reporting efficiency.

Non-traditional data sources. Arab NSOs face difficulties in accessing, assessing and integrating big data, geospatial data, mobile data and privately held data into official statistics, owing to limited data-sharing arrangements, quality-assurance frameworks, governance mechanisms and technical capacities. This reduces their ability to produce more timely, granular and cost-effective statistics; ESCWA assessments show integration remains at an early stage, and it supports countries through data-modernization initiatives and work on innovative data sources.

[4] https://www.unescwa.org/portal/mars

2. How do inequalities affect the way data is generated, collected, governed and used for development? In particular, how do biases in data collection and use, such as gender data gap, affect policymaking, service delivery and development outcomes? (Please provide examples, evidence and any measures being taken to address these disparities)

Inequalities operate at two levels: in *who is counted* and in *who benefits from being counted*.

Gaps in the statistics themselves. ESCWA's gender statistics work finds that progress toward gender equality is slow and uneven, and despite a doubling of gender data availability, substantial gaps persist across many areas. When sex-disaggregated data is missing for labour, unpaid care, asset ownership or violence, policymaking proceeds on partial evidence and service delivery is mistargeted. ESCWA's framing stresses that headline gender-gap improvements can be misleading: the closure of a gap can mask a deeper deterioration in overall conditions rather than a real improvement in women's status.

Measures being taken. ESCWA addresses this through the Arab SDG Monitor[5] and dedicated products such as *Gender Statistics in the Arab Region* and the *Gender Snapshot*, which both quantify the gap and push national statistical offices toward systematic sex-disaggregation. Its multidimensional inequality framework deliberately tracks disparities across nine dimensions including gender, technology access, and the rural–urban and youth divides, so that data collection itself is designed around the groups most at risk of being left out.

Invisibility of displaced and undocumented populations. ESCWA's regional questionnaire found uneven coverage of refugees, internally displaced persons and stateless persons across Arab States, limited disaggregation, and particularly significant gaps in systematic statistics on internally displaced persons — reducing their visibility in national planning and resource allocation. People without legal identity or birth registration may be excluded from official records altogether and face barriers to education, health care, social protection, formal employment and travel. Measures include universal and accessible civil registration, simplified late registration, stronger civil registration and vital statistics (CRVS) systems, and secure integration of civil-registration, census and humanitarian data.

Disability and accessibility data gaps. The limited availability of digital accessibility indicators in many Arab countries makes it difficult to assess whether digital services are inclusive, while incomplete disability statistics hinder monitoring of inclusion, accessibility and equal opportunities. Consistent with the Leaving No One Behind (LNOB) agenda, ESCWA promotes disaggregation of SDG data by sex, age, disability, geographic location, income and migratory status.

[5] https://www.unescwa.org/portal/arab-sdg-monitor

3. Based on your organization's work, what national strategies, regulatory frameworks or policy instruments have been effective in promoting equitable and interoperable data governance? What are the lessons learned? (Please describe any specific challenges, failures or successes encountered during implementation)

ESCWA's most transferable instruments are diagnostic-to-action tools rather than one-off laws:

- National Digital Development Reviews (NDDRs) and the Arab Digital Development Report (ADDR). These assess a country's digital development across five clusters — strategic frameworks; infrastructure, governance and legal environment; digital economy and trade; digital transformation and social inclusion; and culture and media — and feed into tailored National Digital Development Agendas. The lesson: governance and the legal/data environment must be assessed *alongside* infrastructure, not after it.
- The Arab Digital Agenda (ADA), co-led with the League of Arab States, provides a common regional reference framework so that national strategies converge rather than diverge.
- ESCWA's experience through its Regular Programme of Technical Cooperation (RPTC) shows supported Arab countries in developing national digital transformation and digital development strategies that establish whole-of-government ownership of data and promote data exchange across public institutions. These have been complemented by more targeted instruments, including interoperability frameworks, open-data and e-participation policies, cloud-computing and cybersecurity policies, digital inclusion and accessibility policies, and regulatory frameworks for artificial intelligence, blockchain and the Internet of Things. These experiences demonstrate that interoperability must be treated as an institutional and governance issue—not merely a technical one—while equity must be incorporated by design through accessibility requirements, inclusive consultations, disaggregated data and multiple channels for accessing public services[6].

  Several lessons have emerged. First, strategies are more likely to be implemented when they have high-level political sponsorship, a clearly mandated coordinating institution and an implementation plan specifying responsibilities, budgets, timelines and measurable indicators. Second, effective interoperability requires common data definitions and classifications, authoritative base registries, application programming interface standards, data-sharing agreements and clear rules covering privacy, security, consent and accountability. Third, national consultation and capacity-building are essential: ESCWA's approach combines advisory services with stakeholder workshops so that ministries, regulators, statistical offices, service providers, civil society and groups at risk of digital exclusion can shape and validate the resulting instruments. Fourth, emerging-technology strategies, particularly AI strategies, should address data availability, quality,

[6] https://www.unescwa.org/sites/default/files/event/materials/5- 2400462E Technical cooperation activities for 2023-2024.pdf

representativeness, privacy and cross-agency access from the outset rather than treating data governance as a later technical matter[7].

Implementation nevertheless remains the principal challenge. Government data are often fragmented across institutional silos, recorded according to incompatible standards and constrained by legacy systems, limited data quality and unclear mandates for sharing. Other obstacles include institutional turnover, insufficient financing, limited specialized capacity, weak monitoring arrangements and, in conflict-affected countries, political and administrative instability.

- **National CRVS strategies and modern statistical legislation.** National CRVS strategies, supported by updated statistical laws, formal data-sharing agreements and clear institutional roles, have promoted equitable and interoperable data governance by expanding legal identity, digitizing records and linking civil registration, health and statistical systems. Success depends on strong political commitment, NSO leadership, common standards and identifiers, sustainable financing, skilled staff and effective privacy safeguards; implementation has been less successful where mandates are fragmented, records incomplete, systems incompatible or funding short-term, and conflict-affected countries additionally require resilient, decentralized systems and secure backups.
- **Inclusive digital policy templates.** The National e-Accessibility Policy Template for the Arab Region, the National Technical Guidelines on Digital Accessibility, the Template for National Policies on the Accessibility of Emerging Technologies and the ongoing Digital Inclusion National Policy Template provide member States with structured approaches to inclusive digital governance. Lessons include the importance of integrating inclusion principles from the policy-design stage, and monitoring frameworks with indicators to ensure accountability.
- **Evidence from the Global Survey on Data Governance and the National Statistical System.** Among 10 responding Arab countries, all reported a national statistics law, but only 80% said the law fully defines and covers the national statistical system and 60% that the NSO's coordination role is formally established in legislation; 90% have data-protection or privacy legislation, 60% open-data policies and 50% data-sharing policies. Half reported a national data governance strategy, 60% reported adequate political, legislative and resource backing for the NSO, and 60% apply official statistical standards (such as SDMX, GSBPM and ISIC) across the broader data ecosystem. The findings confirm that legislation and technology are most effective when supported by clear institutional mandates, sustained political commitment, common metadata standards, regular coordination among data producers and continuous capacity development — not least because staff turnover can quickly erode institutional knowledge.

[7] https://www.unescwa.org/sites/default/files/artificial-intelligence-strategy-national-guide-english.pdf

4. Can you share examples of initiatives that have helped reduce asymmetries and promote more equitable data stewardship in development sectors such as public services, education, health and agriculture? (Please provide examples, lessons learned and remaining challenges where possible)

- **Public services.** ESCWA's Government Electronic and Mobile Services (GEMS) Maturity Index helps reduce information asymmetries by applying a common methodology to assess 100 priority government services across Arab countries, including services related to education, health, agriculture and business. This enables governments to compare performance, share good practices and prioritize evidence-based improvements. A key lesson is that standardized benchmarks and user feedback promote more transparent and user-centred data stewardship. Remaining challenges include fragmented administrative data, limited data disaggregation by gender, age, disability and location, inconsistent interoperability standards and insufficient follow-up on assessment results.
- **Cross-sector data for decision-making.** The Arab Development Portal consolidates reliable development data across health, employment, climate and economic indicators into shared dashboards, reducing the asymmetry between data-rich and data-poor institutions. ESCWA is adding AI-powered tools, user-friendly dashboards and predictive analytics to strengthen data-driven, evidence-based decision-making across the region.
- **Statistics modernization.** Work on integrating scanner data into price statistics and digitizing national accounts brings sectors that were previously opaque into measurable, comparable form.
- **SDG monitoring and reporting tools.** Alongside the Arab SDG Monitor, ESCWA has deployed the MARS platform to improve coordination among national institutions responsible for SDG reporting; an SDG Data Collection Tool that streamlines the collection, validation and management of indicator data from NSOs and other providers; bilingual (Arabic–English) SDG Metadata offering methodological guidance for consistent reporting; a regional SDMX training series to standardize statistical exchange; and support for producing disaggregated SDG indicators under the LNOB agenda, in collaboration with UNSD and UN custodian agencies to harmonize reporting requirements.
- **Health and public services through CRVS and administrative data.** Regional CRVS strategies strengthening universal birth and death registration and linking civil registration with health and statistical systems have improved legal identity, health planning and access to public services. ESCWA also supports the statistical use of education, health, labour and social-protection records; register-based and mixed censuses in several Gulf countries have improved timeliness and reduced costs. Key challenges are data quality, incompatible systems, privacy and weak data-sharing arrangements.
- **Inclusion-focused initiatives.** ADIP has helped Arab countries advance digital accessibility and develop inclusive policy frameworks through regional policy guidance, technical resources, capacity-building and national implementation support. With EGRISS, ESCWA promotes the statistical inclusion of displaced and stateless populations in censuses, surveys and administrative records using harmonized definitions, targeted samples and innovative sources; fragmented responsibilities and limited access to affected populations remain challenges.

The **remaining challenge** common to all of these is the "last mile": data and platforms exist, but uptake among under-resourced national institutions, and among women and rural populations, lags. The recurring recommendation is a shift from *providing* infrastructure and access to actively *encouraging usage and value creation*. Uneven digital maturity across countries, varying legal frameworks for data sharing, resource constraints and the difficulty of maintaining interoperability as national systems evolve compound this challenge.

5. What mechanisms or institutional arrangements have proven useful in fostering collaboration on data governance for development among different stakeholders (e.g., university-industry, private-public, or multi-stakeholder initiatives)?

ESCWA's experience points to a few arrangements that work:

- **UN–regional co-leadership.** The ADA is co-led with the League of Arab States and developed with a standing coalition of UN and Arab bodies — ITU Arab Regional Office, UNCTAD, UNESCO, UNDESA, UNDP-RBAS, FAO and WHO-EMRO — which prevents duplication and aligns WSIS action lines with the SDGs.
- **University–government research partnerships**, e.g. ESCWA's collaboration with the Mohammed bin Rashid School of Government on AI and data governance research.
- **Development-finance partnerships**, notably with the Arab Fund / Arab Coordination Group (10 Arab development institutions) underpinning the Arab Development Portal.
- **Standing multi-stakeholder forums** — the Arab Internet Governance Forum and the Digital Cooperation and Development Forum — that convene governments, private sector, technical community and civil society on a recurring basis.
- **Regional statistical governance bodies and national committees.** The ESCWA Statistical Committee and the Technical Advisory Group on Demographic and Social Statistics provide standing regional platforms, while national SDG coordination committees and inter-agency CRVS committees link NSOs with civil registration, health, planning and other ministries. Formal data-sharing agreements between data owners and NSOs, together with standardized metadata and data-exchange protocols, define responsibilities and sustain interoperability.
- **Multi-stakeholder pilot partnerships.** ESCWA facilitated cooperation among Lebanon's Central Administration of Statistics, the Ministry of Telecommunications and Data-Pop Alliance to use mobile-phone data for refugee statistics and collaborates with the Qatar Computing Research Institute on big-data applications — models that combine government, academia, international organizations and private companies.
- **Participatory and peer-learning mechanisms.** ESCWA is deploying participatory approach to develop national digital policies and strategies. Through ADIP, ESCWA applies also this approach for digital accessibility and digital inclusion policies. ESCWA convenes regional policy dialogue through the recurrent digital government leaders' meetings and the "Accessible Arab Region: ICT for ALL" initiative. Regional peer-learning networks and continuous technical assistance combined with practical training have proven more effective than one-off workshops.

6. What major bilateral, regional, or international partnerships have helped advance 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 principal partnerships ESCWA participates in or convenes include the League of Arab States (ADA), the ITU Arab Regional Office, UNCTAD (on digital economy and data flows), the Arab Fund / ACG (Arab Development Portal), and the WSIS/UN family more broadly. Benefits include shared standards, pooled data, and convening power that no single country commands. The frank challenges, consistent with ESCWA's own analysis, are coordination across states with very different regulatory maturity; capacity asymmetry between states; interoperability across incompatible legal regimes and statistical standards; and benefit-sharing, ensuring data pooled regionally returns value to the smaller and poorer contributors rather than concentrating it.

Another regional partnership is the ESCWA recurrent meetings for directors of e-Government programs in Arab States[8], established in 2013, for which ESCWA serves as technical secretariat. Its periodic meetings enable national leaders to exchange experiences, coordinate digital-government policies, discuss GEMS results and advance common approaches to open data, data classification, interoperability, privacy and data protection. Benefits include peer learning, avoiding duplication, developing joint initiatives and strengthening Arab positions in international forums.

In the statistical domain, three further partnerships stand out. The regional CRVS partnership led by ESCWA with UNFPA, WHO, UNICEF, UNHCR and AITRS has supported common strategies, legal identity, data-quality assessment and stronger links between civil registration, health and statistical systems; benefits include shared standards and peer learning, while challenges persist in conflict settings, fragmented mandates, incomplete records and uneven financing. The ESCWA–EGRISS partnership, involving AITRS, UNHCR, UNRWA, UNFPA, JIPS and the League of Arab States, has promoted the international recommendations on refugee, IDP and statelessness statistics across 14 Arab countries, improving comparability and statistical inclusion; challenges include complex displacement categories, access to affected populations, coordination and the specific context of Palestine refugees. ESCWA–UNSD collaboration on SDG reporting, SDMX implementation and capacity development — including ESCWA's active contribution to the UNSD-led Data Governance Initiative, where it provides regional perspectives across the Working Group's clusters and supports the adaptation of data governance principles to Arab statistical systems — has enabled harmonized reporting methodologies, adoption of international standards and reduced duplication of reporting.

[8] https://www.unescwa.org/sites/default/files/event/materials/Meetings of directors of e-government programmes in Arab States_0.pdf

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 can strengthen equitable, interoperable data governance by: (a) supporting *common, interoperable standards and trusted cross-border data-flow mechanisms* so regimes converge rather than fragment; (b) financing infrastructure and statistical capacity where the divide is widest, since the regional gap is now defined by meaningful connectivity, skills and affordability rather than mere coverage; (c) embedding *benefit-sharing* and disaggregation-by-default (especially by sex and location) so data serves those most at risk of exclusion; and (d) aligning data governance with the WSIS+20 review and the Global Digital Compact (GDC).

The UN CSTD is well positioned to contribute as the UN's focal point on science, technology and development by: serving as the neutral multi-stakeholder venue to develop shared principles for equitable and interoperable data governance; linking regional commissions like ESCWA into a coherent global framework so regional instruments feed up into and draw down from global norms; championing capacity-building and South–South cooperation; and helping ensure the WSIS+20 review translates into concrete, measurable commitments on bridging the data and digital divides in service of shared prosperity and the 2030 Agenda.

International cooperation should build sustainable national data ecosystems rather than parallel reporting mechanisms — strengthening national statistical systems, promoting common standards and secure identity linkages across civil registration, censuses and administrative data, supporting privacy, cybersecurity and trusted data-sharing frameworks that protect individuals while preserving national ownership, investing in interoperable digital public infrastructure, and expanding financing, technology transfer and capacity development for lower-capacity and conflict-affected countries.

The CSTD can additionally convene statistical offices, the UN Statistical Commission and other stakeholders to develop practical guidance and advance fair benefit-sharing; promote international guidance that explicitly links data governance with digital inclusion, and encourage responsible innovation in emerging technologies, including AI and advanced data analytics. ESCWA stands ready to contribute the experience gained through its statistical, digital government, emerging tech, and digital inclusion programs to help advance this agenda.