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Contribution by India

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

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Consolidated Inputs on Priority Theme for 30th Session of CSTD: 'Data Governance for Development: From Asymmetry to Equitable Stewardship'

Q1. 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)*

India faces several core operational and structural challenges across the data ecosystem, which it actively addresses through strategic national interventions:

- **Infrastructure & Compute Capacity:** Advanced data analytics, large-scale processing, and artificial intelligence require extensive high-performance compute infrastructure and reliable data center capacity. Developing nations face high capital expenditure requirements, supply chain constraints for advanced hardware, and energy infrastructure demands, which create significant entry barriers for domestic researchers, public institutions, and small enterprises
- **Ownership, Access, and Value Asymmetry:** A primary structural challenge is the extraction of raw digital inputs generated domestically by several multi country platforms without proportional local value retention or benefit-sharing.
- **Cross-Border Data Flows:** Reconciling seamless digital trade with national security, citizen privacy, and domestic regulatory oversight remains complex. Unrestricted cross-border transfers can hinder regulatory auditability in critical sectors like financial payments and health, making it necessary to balance open data flows with targeted data localization mandates.
- **Data Fragmentation:** Fragmented datasets limit data interoperability across government departments and impedes the creation of unified, population-scale data pools required for public policy research and development applications.

India's Approach :

India has proactively strengthened its data governance architecture through the Digital Personal Data Protection (DPDP) Act, 2023 and the rules framed thereunder. The Act establishes a principle based and technology-agnostic framework for the responsible processing of digital personal data, balancing the protection of individuals with the need to process data for lawful purposes. The framework places accountability on data fiduciaries through clear notice, purpose limitation, appropriate technical and organisational measures, reasonable security safeguards, breach intimation and effective mechanisms for people to exercise their rights.

India's approach to cross-border transfers is facilitative, through which transfers may take place subject to requirements specified by the Central Government. Significant data fiduciaries, which process high volumes of sensitive data, may be subject to additional measures for specified personal data and related traffic data. The Act further preserves the applicability of any other Indian law that may provide a higher degree of protection or impose additional restrictions in relation to cross-border transfers of personal data. For instance, a 2018 directive by the Reserve Bank of India (RBI) requires that all data relating to payment systems must be stored in India. This approach supports trusted data flows while safeguarding national interests and individual rights, and advancing equitable and responsible data governance.

India emphasises that nations must benefit proportionately from the data generated within their jurisdictions rather than remain suppliers of raw digital inputs. Accordingly, international data-sharing arrangements should integrate value-sharing mechanisms, capacity-building support, collaborative research pathways and technology partnerships that strengthen domestic digital ecosystems. Strengthening data infrastructure is essential for the responsible collection, storage, processing and use of data at scale. India is addressing this dimension through population-scale Digital Public Infrastructure (DPI) (Aadhaar, UPI, DigiLocker, ONDC, ABDM etc.) and by expanding compute and data-centre capacity. Under the AI for All vision, the IndiaAI Mission is expanding national compute capacity through the IndiaAI Compute Pillar, which has provisioned more than 58,000 subsidised GPUs, complemented by the expansion of domestic data centre capacity through national and state-level policies. By enabling governed access to datasets through AIKosh, India is advancing responsible data access to researchers, developers and companies to support their innovation-led goals.

India has taken several steps to address data fragmentation, including the Open Government Data Platform (data.gov.in), National Data Governance

Framework (NDGF), etc., to improve data sharing and interoperability across departments. The NDGF aims to break data silos by standardising data, metadata and APIs and enabling secure data exchange across public institutions. India is also creating innovative use cases for public good by enhancing data interoperability. Sanchar Saathi is one such example, providing near-real-time data exchange among banks, financial institutions and telecom operators to help protect citizens from telecom-related financial fraud.

Q2. 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? *(Please provide examples, evidence and any measures being taken to address these disparities)*

Inequalities in data generation arise primarily from digital divides, variations in digital literacy. Disparities in device ownership and network connectivity between urban and rural populations may cause administrative data to over-represent digitally connected groups.

India's Approach :

India's approach to addressing this challenge rests on two complementary pillars: seamless participation of every citizen in the digital ecosystem and strong institutional frameworks for managing data across its lifecycle.

India has one of the world's largest mobile subscriber bases, with over 1.27 billion wireless subscribers, while mobile data remains among the most affordable globally, with data cost less than 10 cent per GB. While every district headquarter of country is connected with at least 4G mobile coverage, telecom connectivity is increasingly reaching rural and remote areas. BharatNet, one of the biggest rural telecom projects, has connected more than 214 thousand villages with broadband speed. These investments in affordable and widespread connectivity, complemented by digital literacy and inclusive Digital Public Infrastructure, help broaden participation in the digital ecosystem and provide the foundation for population-scale adoption of digital applications.

The almost ubiquitous adoption is further safeguarded with the institution frameworks that apply to all data principals. Notices are required to be clear, independently understandable and accessible, enabling individuals to make

informed choices about the use of their personal data. The consent is linked to a specified purpose, and individuals are provided rights relating to access, correction, updating, erasure and grievance redressal.

The consent manager framework of India's data protection law enables data principals to give, manage, review, and withdraw consent through an interoperable platform. Additional safeguards apply to the processing of personal data of children and of persons with disabilities who have lawful guardians, including verifiable consent requirements.

Complementing this framework, the Government has released 'Operational Guidelines for the Management of Official Statistics Across the Data Lifecycle'. Recognising that well-governed statistics are a critical foundation for identifying and correcting bias, these guidelines modernise data management practices, ensure accuracy and reliability, reduce duplication and strengthen the credibility of national statistical systems on which policymaking and service delivery depend.

India's approach with AI underscores the importance of equitable, secure and innovation-enabling data access and sharing, particularly to reduce structural asymmetries that would otherwise concentrate benefits with a few actors. The AIKosh platform under the IndiaAI Mission addresses this through permission-based access to high-value datasets, which widen participation in AI development beyond large incumbents, enabling start-ups, researchers and public institutions to build inclusive solutions.

Collectively, these measures strengthen transparency, accessibility and individual agency, and help reduce barriers arising from differences in digital literacy or capacity to engage with data-driven services.

Q3. Has your country implemented national strategies, regulatory frameworks or policy instruments to promote equitable and interoperable data governance? What are the lessons learned? *(Please describe any specific challenges, failures or successes encountered during implementation)*

India's data governance framework rests on constitutional privacy foundations and combines personal data protection with open-data initiatives:

- **DPDP Act, 2023 & DPDP Rules, 2025:** Establishes a technology-agnostic regime based on 7 principles: *Consent & Transparency, Purpose Limitation, Data Minimisation, Accuracy, Storage Limitation, Security*

Safeguards, and Accountability. Operationalized via the DPDP Rules, 2025, which outline notice, breach reporting, cross-border mechanisms, and child data protection.

- **Sectoral Directives:**

Finance: The RBI's 2018 Directive mandates payment system data localization within India.

Health: The Ayushman Bharat Digital Mission (ABDM) Health Data Management Policy (2021) establishes a federated, consent-driven digital health ecosystem.

Geospatial: The National Geospatial Policy (2022) liberalizes geospatial data access to drive private and public innovation.

- **Open and Non-Personal Data Systems:** The National Data Sharing and Accessibility Policy (NDSAP), 2012 and the Government Open Data License (GODL), 2017 enable royalty-free access to non-sensitive government data via the Open Government Data (OGD) Platform. Through the IndiaAI Mission, over 13,000 quality high-value datasets have been made accessible via API-based open standards.

Lessons Learned & Implementation Insights

- **Phased Commencement:** Broad regulatory compliance requires structured, phased implementation timelines to allow public and private institutions to adapt technical infrastructure smoothly.
- **Public Consultations:** Open, consultative rulemaking improves operational clarity and reduces compliance friction across industries.
- **Balancing Rights and Innovation:** Combining clear personal privacy rules with open, non-personal data access ensures individual rights are protected without stalling technological development.

Q4. 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? *(Please provide examples, lessons learned and remaining challenges where possible)*

India's DPDP framework provides a baseline for responsible data governance across public services, education, health, agriculture and other development sectors. Personal data is retained only for as long as its purpose is served or

the law requires, supporting proportionate stewardship. A data fiduciary is accountable for its processing and must adopt appropriate technical and organisational measures, reasonable security safeguards and effective grievance redressal. For State processing of subsidies, benefits, services, licences and permits, the framework emphasises lawful and necessary use, accuracy, limited retention, security and accessible avenues for individuals to exercise their rights, with specific conditions for processing children's data by healthcare and educational entities.

India has reduced data asymmetries by treating foundational data as a shared public good which is standardised, interoperable and held in trust for citizens. The National Statistical Office of the Government of India has advanced this through e-Sankhyiki, launched in 2024 as a comprehensive data management and sharing system for the dissemination of official statistics. It now hosts 21 statistical products with more than 136 million records, enabling citizens, researchers and businesses to query official datasets directly and connect them to their own analytical tools¹.

For the development sector, India has implemented several programs:

- a) In finance, the Reserve Bank of India's April 2018 directive under the Payments and Settlement Systems Act, 2007, mandates that all data related to payment systems be stored in India. It is designed to safeguard critical financial data while supporting the rapid growth of digital payments. This has enabled UPI to expand access to formal financial services for citizens who were previously outside the digital economy.
- b) In healthcare, the Ayushman Bharat Digital Mission (ABDM) keeps data at its source and moves it only with the individual's consent. It is anchored by the ABHA health ID, and gives patients control over their longitudinal records. The Mission crossed 900 million ABHA accounts in 2026² and a Digital Health Incentive Scheme brings smaller clinics into the interoperable system, extending digitisation beyond large facilities.
- c) In agriculture, the Digital Agriculture Mission has built AgriStack as a farmer-centric infrastructure on three state-maintained registries: a Farmers' Registry, geo-referenced village maps and a Crop Sown Registry. They give small and marginal farmers a verifiable digital identity that opens access to credit, insurance and advisories, and around 92mn farmer IDs have been generated nationwide.

d) In education, platforms such as DIKSHA distribute learning content widely, narrowing the gap between well- and under-resourced schools. Disaggregated data from the platform helps direct resources toward girls' education, secondary-level participation and infrastructure.

Q5. 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)?

India fosters collaboration around data governance through a layered set of institutional arrangements that bring together regulators, public authorities, private entities, specialised intermediaries and citizens. In the domain of personal data, India's DPDP framework combines regulatory institutions, accountable organisational processes, and citizen-facing mechanisms. Data fiduciaries are required to maintain effective grievance-redressal mechanisms, while registered consent managers enable data principals to give, manage, review, and withdraw consent through interoperable platforms and remain accountable to them.

A leading illustration of public-private collaboration is India Stack, with Aadhaar for identity, UPI for payments and DigiLocker for document exchange, providing the common foundation on which both public and private solutions are built. This collaborative model extends into consented data sharing across development sectors. In the financial sector, the central bank of India, the RBI, standardised open APIs and issued directions to establish the 'Account Aggregator' ecosystem. This ecosystem allows consent managers to plug into a common system rather than build bilateral links to each institution. In health, ABDM establishes an interoperable, federated digital health ecosystem in which data resides at its source and is exchanged across different stakeholders in the health ecosystem with the individual's consent.

The IndiaAI Mission is India's principal multi-stakeholder initiative for responsible AI and data-sharing. AIKosh, a permission-based data and AI-model access platform has onboarded over 13,000 datasets and 329 AI models across 20 sectors including government departments, public institutions, industry and research organisations. Similarly, the telecom sector initiatives like Sanchar Saathi Portal and the Financial Fraud Risk indicator (FRI) provide platforms for collaboration between citizens, telecom operators and financial institutions towards combating cybercrime and financial frauds.

These measures have resulted in a structured ecosystem in which individuals, public authorities, private entities and specialised intermediaries engage through transparent, accountable, and technology-enabled channels for the responsible governance of data.

Q6. 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)

India actively advances global data governance through multilateral engagements:

- **G20 Presidency (2023):** India led the consensus on defining **Digital Public Infrastructure (DPI)** as safe, interoperable, open-standard digital systems operating at societal scale to deliver equitable services.
- **G20 Digital Economy Working Group:** Reaffirmed the imperative of enabling trusted cross-border data flows and leveraging *Data for Development*.
- **UN Global Digital Compact (GDC, 2024):** Embedded India's open DPI approach into the Global Digital Compact under the UN *Pact for the Future*, presenting reusable, modular digital building blocks for developing nations.

Challenges faced

- **Capacity & Technical Readiness Gaps:** Differences in technical capacity across partner nations require tailored implementation support and localized adaptation of digital building blocks.
- **Cross-Border Interoperability:** Aligning distinct national legal standards, privacy regulations, and security protocols requires sustained dialogue to maintain cross-border trust.

Q7. 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?

To ensure data governance supports global sustainable development, international cooperation can establish an equitable, citizen-centric, and

privacy-respecting global framework that ensures digital data drives inclusive development rather than perpetuating global asymmetries. India emphasizes that interoperable data governance, while respecting the national data sovereignty, must be anchored in the following foundational pillars:

- **Equitable Benefit-Sharing:** International data governance must recognize data as a strategic economic resource. Developing countries—where vast quantities of raw data are generated—must not be reduced to mere suppliers of primary digital inputs. International frameworks must integrate value-sharing mechanisms, joint technology transfer, collaborative research, and local capability development so that value creation accrues proportionately within domestic ecosystems.
- **Open Standards for Interoperability:** Promoting open APIs, modular Digital Public Infrastructure (DPI), and non-proprietary tech architectures prevents technological lock-in, reduces deployment costs for developing nations, and ensures cross-border technical compatibility.
- **Consent-Based and Citizen-Centric Stewardship:** Frameworks must put individual agency and privacy at the center through transparent processing, explicit consent mechanisms, data minimisation, storage limitation, and accessible grievance redressal, protecting citizens' rights across jurisdictions.
- **Balance Data Sovereignty & Trusted Flows:** Global regimes must reconcile facilitative cross-border data transfers with legitimate national security, regulatory auditability, and data localization safeguards to protect critical national sectors.

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