



Digital Public Goods

This editorial is based on the article [“An opportunity for Digital India”](#) which was published in The Indian Express on 29/12/2021. It talks about the concept of the Digital Public Goods and its utility for the economic development of the country and establishing good relations through digital diplomacy.

For Prelims: Digital India Mission, Data Localisation, Data protection Bill.

For Mains: Concept of digital public goods and its utility, Aadhaar and associated utility, Good Governance through Digital Means, Challenges of Cybersecurity.

India is pioneering the concept of digital public goods that enhance the ease, transparency and speed with which individuals, markets and governments interact with each other. Built on the foundation of [Aadhaar](#) and **India Stack**, modular applications, big and small, are transforming the way we make payments, withdraw our PF, get our passport and driving licence and check land records, to name just a few activities.

Children have access to QR-coded textbooks across state boards and languages, the economically disadvantaged have access to the public distribution system and beneficiaries of government schemes have money transferred directly into their bank accounts.

There is an opportunity for India to embark on digital diplomacy — to take its made-in-India digital public goods to hundreds of emerging economies across the world. This could be a strategic and effective counter to China’s [Belt and Road Initiative\(BRI\)](#). But India needs to bring transformation in its technological, startup and innovation ecosystem.

Advantage of the Digital Public Goods

- **Cheaper and Effective Usage:** The cost of setting up an open source-based high school online educational infrastructure, to supplement the physical infrastructure, for an entire country is less than laying two kilometres of high-quality road.
 - The **investments required for transporting digital public goods are minuscule** in comparison and there is no chance of a debt trap. Also, the code(platform) is highly reusable.
- **Instant Visible Outcomes:** Unlike physical infrastructure such as ports and roads, digital public goods have short gestation periods and immediate, and visible impact and benefits.
 - Processes get streamlined and wait times for any service come down dramatically. Issuances of passports, PAN cards and driving licences are such examples.
- **Plugs the Leakage:** Digital infrastructure plugs leaks. It **eliminates ghost beneficiaries of government services**, removes touts collecting rent, creates an audit trail, makes the individual-government-market interface **transparent** and provides **efficiencies** that help recoup the

investments quickly.

- Productivity goes up and services can be scaled quickly. Benefits can be rapidly extended to cover a much larger portion of the population.
- The **digital public goods infrastructure compounds while physical infrastructure depreciates**. Compounding happens for two reasons.
 - One is the growth of technology itself. Chips keep becoming faster, engines more powerful, and technology keeps improving.
 - The second reason is the network effect. As more and more people use the same technology, the number of “transactions” using that technology increases exponentially — be it Facebook posts or UPI transactions.

Challenges With India’s Digital Ecosystem

- **Privacy Issues With Digital Public Goods:** Potential violations of privacy and possible weaponization of data is a primary issue related to such digital initiatives.
- **Increase in Inequalities:** Success in the digital provision of services is dependent on many underlying factors, including digital literacy, education and access to stable and fast telecommunication services.
 - In this setting, undertaking large-scale digitisation of services without bridging these digital divides could result in increasing existing inequalities.
- **Security Issues:** There is a cybersecurity challenge in ensuring end-to-end protection of data throughout the whole ecosystem.
 - While channels and databases used by the Government for transmission and storage are usually secure, other players in the ecosystem may not possess the requisite expertise or security to prevent and respond to breaches.
 - The alleged breach of the Aadhar database is a case in point.
- **Unserved Remote Areas:** With digital services not being uniformly distributed, communities in remote areas often require on-ground staff to deploy and supplement digital tools.

Way Forward

- **Addressing Privacy Issues:** Designing privacy-protection and secure databases is critical. It is, therefore, imperative that regulations governing any digital initiative must take into account provisions of the [Personal Data Protection Bill, 2019](#).
- **Ensuring Inclusivity:** Digital ecosystems should be guided by factors of availability, accessibility, affordability, value and trust.
- **Ensuring Transparency:** The invisible rules that are coded into “tech” need to be made transparent through thoughtful design principles, legislation, governance frameworks and public engagement.
- **Citizen-Centric Design of Digital Public Goods:** There is a need to ensure the design is citizen-centric and ensures inclusive access to services at the last mile will help drive adoption and sustain these ecosystems.

Conclusion

Emerging economies are characterised by gross inefficiencies in the delivery of government services and a consequent trust deficit. Digital public goods spread speed, transparency, ease and productivity across the **individual-government-market ecosystem** and enhance inclusivity, equity and development at scale.

India’s **digital diplomacy** can be beneficial to and welcomed by, all emerging economies from Peru to Polynesia, from Uruguay to Uganda, and from Kenya to Kazakhstan. It can take made-in-India digital public goods across the world and boost India’s brand positioning as a leading technology player in the digital age.

It will also enable quick, visible and compounding benefits for India’s partner countries and earn India immense goodwill. And it will help create a strong foothold for India globally to counter the extravagantly expensive, brick-and-mortar led Belt and Road Initiative of China.

Drishti Mains Question

'The concept of digital public goods can help enhance the ease, transparency and speed with which individuals, markets and governments interact with each other.' Discuss the advantages and challenges of creating and utilising the digital public goods.

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