

# CSB IAS ACADEMY

TOPIC OF THE DAY (DATE: 19.09.2023)

## DIGITAL PUBLIC INFRASTRUCTURE

### WHY IN NEWS?

During the G 20 Summit, New Delhi Leaders' Declaration stated the G20 countries recognised the development of safe and trusted deployment of digital public infrastructure (DPI) can "enable service delivery and innovation".

### WHAT IS DIGITAL PUBLIC INFRASTRUCTURE?

- It refers to an open-source identity platform that can be used to access a wide variety of government and private services by building applications and products. It includes digital forms of ID and verification, civil registration, payment (digital transactions and money transfers), data exchange, and information systems.
- These public digital platforms are Customisable, localizable, interoperable and leverage public data for open innovation models.
- **For example, Unified Payment Interface (UPI)** architecture's interoperability is resonated in over 300 banks offering linkages to bank accounts through UPI which is accessed by consumers via 50-plus third-party apps.

### GENESIS OF DIGITAL PUBLIC INFRASTRUCTURE

- The potential benefit of Digital public infrastructure came to the fore **during the pandemic when public health systems collapsed and social security nets couldn't cope**. In fact, countries which had made some investment in DPI were able to respond more effectively.
- For instance, **Taiwan, South Korea, Togo and Sri Lanka and India used DPIs for contact tracing, maintaining reliable public data repositories**, reporting, analysing and disseminating health data, for vaccine delivery and for delivering targeted benefits. Since then, a lot more countries (49) have started rolling out Digital IDs.

### Consensus on Digital Public Infrastructure in G 20 New Delhi Declaration

- This was the **first time when a multilateral grouping recognised the importance of DPI** and sought to define it and constructed principles and conditions for its development and deployment. The G20 New Delhi Leaders Declaration **agreed on developing a G20 Framework for Systems of DPI**. They further welcomed "**India's plan to build and maintain a Global Digital Public Infrastructure Repository (GDPIR)**", a virtual repository of DPI for use by other G20 members and beyond. Finally, **India's proposal of the One Future Alliance (OFA)**, a voluntary initiative aimed to build capacity, and provide technical assistance and adequate funding support for implementing DPI in Low- and Middle-Income Countries (LMICs hereon) was noted.
- Key Principle in New Delhi Declaration on DPI is **Interoperable DPI and financial inclusion**. The framework calls for building interoperable solutions and formulating laws that can ensure that DPIs are safe, secure, trusted, and governed transparently. DPI is built using open-source and modular technologies that enable "**interoperability**", which enables the information exchange between different branches of the public and private sector. This helps in vastly improving the speed and scale of service delivery. India provides a useful case study of this potential. The

# CSB IAS ACADEMY

economic survey of 2023 suggested that *India's DPI can add around 60-100 basis points to the country's potential GDP growth rate.*

## **STATUS OF DIGITAL PUBLIC INFRASTRUCTURE IN INDIA**

### ***Key Components of India's Digital Public Infrastructure:***

- **Aadhaar:** Aadhaar is a 12-digit unique identity number issued to Indian citizens and residents by the Unique Identification Authority of India (UIDAI). It is the world's largest biometric ID system, with over 1.2 billion registered users.
- **Digital Locker:** The Digital Locker is a cloud-based platform that allows Indian citizens to store and share their digital documents securely. The platform was launched in 2015 and has since gained over 38 million registered users.
- **Goods and Services Tax Network (GSTN):** The GSTN is a non-profit, private limited company that manages the IT system for the GST. The GSTN provides a common IT platform for all stakeholders, including taxpayers, tax authorities, and banks.
- **India Stack:** India Stack is a set of APIs (Application Programming Interfaces) that allows businesses and entrepreneurs to build innovative solutions on top of India's digital public infrastructure. India Stack includes various components such as Aadhaar, eSign, and the Unified Payments Interface (UPI).
- **Unified Payments Interface:** UPI is a real-time payment system launched by the National Payments Corporation of India (NPCI) in 2016. The UPI allows users to send and receive money instantly using a mobile phone number and a virtual payment address (VPA).
- **Principle of DPI :** The platforms in DPI are based on core principles of consent-based data sharing protocols, openness, equity, inclusivity, fairness, transparency and trust hence reducing the digital divide.

### ***Significance of Digital Public Infrastructure:***

- Because of DPI's low-cost and inclusive platforms, India has been able to push the boundary of public service delivery and digitally leapfrog, with the public sector defining regulatory limits and the private sector innovating and competing in the marketplace.
- DPI also allows nations to retain strategic control over their digitalisation processes, ensure digital cooperation and strengthen long-term capacity.
- **A recent study by the Bank for International Settlements (BIS) has highlighted that on account of the DPI, India has delivered in 10 years what would have taken 50 years to achieve.**
- The analysis by the Centre for Digital Economy Policy Research (C-DEP) estimates that national digital ecosystems could add over 5% to India's GDP.

### ***Applications of Digital Public Infrastructure:***

India is seen as a global trendsetter in the DPI movement, having set up following multiple large-scale DPIs in contrast to the tech innovations that earlier emerged from the developed world:

1. JAM trinity which links Aadhaar, mobiles and bank accounts
2. Digi Locker for digital storage and documents
3. Bharat Bill Pay, a one stop solution for multiple payments
4. UPI, Aadhaar Enabled Payment Systems (AePs) and Immediate Payment Service (IMPS)
5. CoWin for vaccination