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INDIAN EXPRESS Page 7

MEASLES IN INDIA

(Syllabus: GS Paper 2 – Social Issues - Health)

11L children in India missed 1st measles shot in '22: Report

ANONNA DUTT
NEW DELHI, NOVEMBER 17

AN ESTIMATED 11 lakh children in India missed their crucial first dose of measles vaccine in 2022, according to a report by the World Health Organization and US Centres for Disease Control and Prevention (CDC). This puts India among 10 countries with the highest number of children who did not receive the first shot.

India is also among the 37 countries that witnessed large or disruptive outbreaks, reporting 40,967 measles cases in 2022, according to the report.

Globally, immunisation against measles dropped to lowest levels since 2008 during the pandemic, leading to an 18% rise in cases and 43% increase in deaths in 2022, said the report that presented the first estimates of gaps after the pandemic.

"There was a dip in routine immunisation during 2020 and 2021 because of the pandemic. The challenge with measles is even if a single cohort misses out on vaccination, they become extremely vulnerable to the infection. The gaps in immunisation during the pandemic were mainly in peri-urban areas and clusters where the outbreaks were later reported," said Dr N K Arora, head of the National Technical Advisory Group on Immunisation (NTAGI).

Two doses of the measles vaccine offers 97% protection for life. The protection is likely to be weaker with a single dose. While measles usually causes high fever, cough, runny nose, and red rashes, complications such as brain swelling, pneumonia and breathing problems, and severe diarrhoea may lead to death.

According to the report, 33 million children globally missed either both doses or second dose.

Dr Arora said the gaps in immunisation have since been covered during the three rounds of Intensified Mission Indradhanush that ended in October. This mission ensures immunisation services reach children who missed out on shots.

"This year, the coverage of the campaign was expanded to include children up to the age of five years as opposed to two years. This was mainly done to ensure high coverage of the measles-rubella vaccine to reach the goal of elimination," said Dr Arora.

Speaking about sensitivity of measles surveillance in India — another indicator the report looks at, adding that only half the countries have reached the target — Dr Arora said India has performed extremely well. "Globally, a non-measles discard rate of 2 per 100,000 is considered sensitive enough. India has a sensitivity that is three to four folds better."

With most of the country's health machinery busy dealing with Covid-19, there was a decline in coverage. This led to an increase in measles cases reported mainly from five states — Bihar, Gujarat, Haryana, Jharkhand and Maharashtra. At least 13 deaths were reported in Maharashtra in 2022. This led to the government launching an outbreak response immunisation drive, vaccinating 13 lakh children between the ages of nine months and 15 years in the affected states and their neighbours between November 2022 and May 2023. "The outbreak can be considered a blessing in disguise. It ensured that children in the region are naturally immunised and government has given shots to those living around," said Dr Arora.

EXPLAINED

E. Elimination target

THE REPORT comes at a critical juncture as India, along with other countries in the WHO South-East Asia Region, adopted the goal of measles elimination by 2023. While the government has tried to catch up after the pandemic with Indradhanush to achieve the elimination target, India would need to vaccinate 95% of the children.

Context: An estimated 11 lakh children in India missed their crucial first dose of measles vaccine in 2022, according to a report by the **World Health Organization and US Centres for Disease Control and Prevention (CDC).**

- This puts India among 10 countries with the highest number of children who did not receive the first shot.

Measles:

- **About:** A communicable disease that is **highly contagious and caused by virus.** This means it's very easily spread to others.
- **Causes**: It is caused by morbillivirus, which is **mostly seen in the winter and spring.**
- **Measles virus:** Belongs to the **paramyxovirus family** and it is normally passed through direct contact and through the air.
- **Spread**: It is **spread through droplets** of nose, throat or mouth of an infected person.
- Measles generally **appear only 10 - 12 days after the infection**.
- **Symptoms**: High fever, Runny nose, Bloodshot eyes, Tiny white spots on the inside of the mouth, Rashes on the face, upper neck that spread downwards (this appears after several days).
- **Treatment**: **Routine measles vaccination** for children, combined with mass immunization campaigns in countries with low routine coverage, are key public health strategies to reduce global measles deaths.
- **Vaccine**: The measles **vaccine was introduced in 1963**.
  - The vaccine for the disease are provided in the form of **measles-rubella (MR), measles-mumps-rubella (MMR), or measles-mumps-rubella-varicella (MMRV)** combination. The first dose of MMR is given at the age of 12 – 15 months, and the second one at 4 – 6 years.
  - Adults and teenagers can also take MMR vaccinations as required.
- **Preventive efforts:**
  - **Global**: Under the **Global Vaccine Action Plan**, measles and rubella are targeted for elimination in five WHO Regions by 2020. **WHO** is the lead technical agency responsible for coordination of immunization and surveillance activities supporting all countries to achieve this goal.
- **India**: The Government of India has launched the **Measles and Rubella Vaccination Campaign** in 2017 with a view to providing measles-rubella (MR) vaccines to children between the ages of nine months and under 15 years.

THE HINDU Page 12

TECHNICAL TEXTILES
(Syllabus: GS Paper 3 – Economy)

'India targets $40-bn in technical textiles'

M. Soundariya Preetha
COIMBATORE



India's market for technical textiles is targeted to touch $40 billion by 2030 from the current $23 billion, said Rajeev Saxena, Joint Secretary, Ministry of Textiles, here on Friday.

Speaking at a conference organised by the Confederation of Indian Industry and the Department of Textiles, Tamil Nadu, he said the export of technical-textile products was expected to touch $10 billion from the current $2.5 billion in seven years.

The National Technical Textile Mission, unveiled three years ago, has been extended till 2026. "We do not have high-performance fibre. We import our needs," he said.

The government allocaed ₹1,000 crore under the Mission for research and development and so far, 126 projects, with a total value of ₹371 crore, have been approved.

A portal for start-ups in technical textiles segment to submit applications for support under the Mission would be unveiled soon.

USAGE OF TECHNICAL TEXTILES IN 12 SEGMENTS (BASED ON APPLICATION)

MEDITECH
Diapers, Sanitary Napkins, Disposables, Contact Lens, Artificial Implants

MOBILTECH
Airbags, Helmets, Nylon Tyre Cords, Airline Disposables

OEKOTECH
Recycling, Waste Disposal, Environmental Protection

PACKTECH
Wrapping Fabrics, Polyolefin Woven Sacks, Leno Bags, Jute Sacks

PROTECH
Bullet Proof Jackets, Fire Retardant Apparels, High Visibility Clothing

SPORTECH
Sports Net, Artificial Turf, Parachute Fabrics, Tents, Swimwear

AGROTECH
Shadenets, Fishing Nets, Mulch Mats, Ant Hail Nets

BUILDTECH
Cotton Canvas Tarpaulins, Floor and Wall Coverings, Canopies

CLOTHTECH
Zip Fasteners, Garments, Umbrella Cloth, Shoelaces

GEOTECH
Geogrids, Geonets, Geocomposites

HOMECH
Mattress and Pillow Fillings, Stuffed Toys, Blinds, Carpets

GEOTECH
Conveyer Belts, Vehicle Seat Belts, Bolting Cloth

Context: As per the Joint Secretary (Ministry of Textile), India's market for technical textiles is targeted to touch **$40 billion by 2030** from the **current $23 billion**.

Technical Textile

- **About:** Technical textiles or engineered textiles are textile material and products manufactured primarily for **technical performance** and **functional properties** rather than aesthetic and decorative characteristics.
  - Technical textiles is a fast-growing sub-segment and is a 'sunrise industry' that finds its usage in an array of sectors.
- **Applications:** Clothing, agriculture, medical, infrastructure, automotive, aerospace, sports, defence and packaging etc.
- **Contribution**: Technical textile accounts for **approximately 13% of India's total textile** and apparel market and contributes to **India's GDP at 0.7%.**
- **Step taken:** A National Technical Textiles Mission (2020) has been set up that aims at an average **growth rate of 15-20%** to increase the domestic market size of technical textiles to $ 40-50 Bn by the year 2024; through:
  - Market development, market promotion, international technical collaborations, investment promotions and Make in India initiative.

National Technical Textiles Mission

- The focus of the Mission is for developing on usage of **technical textiles** in various flagship missions and programmes (like Ayushman Bharat, Jal Jeevan, Agriculture etc), including strategic sectors.
- **Implementation period:** 4 years (2020-21 to 2023-24).

PIB Nov 17

IPEF
(Syllabus: GS Paper 2 – IR)

Indo-Pacific Economic Framework for Prosperity (IPEF) Supply Chain Agreement signed by the 14 IPEF Partners

Context: The 3rd **Indo-Pacific Economic Framework for Prosperity (IPEF)** Ministerial Meeting held in San Francisco, California.

- At this Ministerial Meeting, negotiations under the IPEF Pillar-III (Clean Economy), Pillar IV (Fair Economy) and the Agreement on the Indo-Pacific Economic Framework for Prosperity (which seeks to establish a ministerial-level council and a commission) were substantially concluded.



Indo-Pacific Economic Framework for Prosperity (IPEF)

- **History:** The Indo-Pacific Economic Framework (IPEF) was launched by United States (US) in Tokyo at the QUAD summit on May 23, 2022.
- **Aim:** The framework intends to "advance resilience, sustainability, inclusiveness, economic growth, fairness, and competitiveness" in these economies.
  - **Not an FTA:** The US has repeatedly reiterated that the IPEF is **not a Free Trade Agreement (FTA)** like the Regional Comprehensive Economic Partnership (RCEP) and Comprehensive and Progressive Transpacific Partnership (CPTPP).
- **Members:** IPEF has **14 partner countries** including Australia, Brunei, Fiji, India, Indonesia, Japan, Republic of Korea, Malaysia, New Zealand, Philippines, Singapore, Thailand, Vietnam & USA.
- **Pillars:** The framework is structured around **four pillars relating to: Trade (Pillar I); Supply Chains (Pillar II); Clean Economy (Pillar III); and Fair Economy (Pillar IV).**
  - India had joined Pillars II to IV of IPEF while it has an observer status in Pillar-I.

DTE Nov 17

STATE OF CRYOSPHERE REPORT
(Syllabus: GS Paper 3 – Environment)

World needs to limit global warming to 1.5°C to protect cryosphere, 2°C too high: Report

Context: Nearly all tropical glaciers, most mid-latitude glaciers and polar regions will disappear even if the world manages to limit global temperature rise to 2 degrees Celsius, above the preindustrial era, according to the **State of the Cryosphere 2023 report.**

Key findings of the report

- The Himalayas are expected to **lose 50%** of today's ice if global average temperatures touch 2°C.
- The impacts are already being felt at the current temperature rise of 1.2°C as many glaciers of the northern Andes, East Africa, and Indonesia are disappearing rapidly.
- Sea ice around **Antarctica hit an all-time low summer and winter** record this year. Water temperatures in parts of the Arctic and North Atlantic were 4-6°C higher than normal.
- The atmospheric carbon dioxide concentrations were **50 per cent above pre-industrial levels in 2023.**
- Ice sheets in Greenland and parts of Antarctica could contribute between **12-20 metres of sea-level rise at 2°C.** This 2°C will result in extensive, potentially rapid, irreversible sea-level rise from Earth's ice sheets.
- Both 2°C and 1.5°C could spell doom for **permafrost.**

Cryosphere

- The cryosphere contains the frozen parts of the planet. It includes snow and ice on land, ice caps, glaciers, permafrost, and sea ice. This sphere helps maintain Earth's climate by reflecting incoming solar radiation back into space.

Permafrost

- It is a ground that stays frozen for two consecutive years. These permanently frozen grounds are most common in regions with high mountains and in Earth's higher latitudes—near the North and South Poles.
- When permafrost thaws, it releases CO_2 and methane emissions, which will cause a spike in temperatures even if human emissions reach zero.

NBFCs

(Syllabus: GS Paper 3 – Economy)



NBFCs Likely to See Rise in Bond Mkt Borrowing Costs

Corporate bond yields set to jump as non-bank lenders tap debt market for more capital

Bhaskar.Dutta
@timesgroup.com

Mumbai: Indian non-bank lenders will likely have to shell out more to borrow in the bond market after the banking regulator Thursday assigned higher risk weights to unsecured advances, potentially increasing debt supply by pushing these borrowers to sell corporate bonds while making it more expensive for banks to lend to this credit subsegment.

Corporate bond yields, therefore, are set to head north as a large section of non-banking finance companies (NBFCs), hitherto relying on bank funding, increase debt supply to garner incremental capital, prompting investors to demand higher rates of interest. "There could be some widening in terms of credit spreads for NBFCs. Funding costs for them could go up from the bond market, too, in case NBFCs start replacing a part of their borrowing from banks with funds from the debt capital market," said Anil Gupta, senior vice president & co-group head, ICRA. "Up to 20 basis points would be the incremental cost that banks may start charging. If the markets are efficient, then bond spreads should increase by a similar amount."

One basis point is a hundredth of a percentage point.

Higher Interest Rates ▸▸ 9
RELATED REPORT ▸▸ 5

CORPORATE BOND YIELDS

Rating (Tenure)	Yield (Sept 30, 2020), %	Yield (Sept 15-Oct 13, 2022)*, %	Yield (Oct 16-Nov 9, 2023)*, %
AAA (1-year)	4.35	7.01	7.80
AAA (3-year)	5.35	7.75	8.03
AAA (5-year)	6.10	7.70	7.84
AA (3-year)	6.13	8.50	8.64
BBB- (3-year)	10.10	12.15	12.31

*Average/ Source: RBI Bulletin

₹3.9 lakh crore
FY24 corporate bond issuances up to Sept 30, versus **₹2.8 lakh crore** in year-ago period

'MARGINS MAY BE HIT'

Bank, NBFC Shares Slump on RBI Move

Shares of banks and

Overview of Regulators of Non-Banking Companies

Companies
(Registered under Section 3 of the Companies Act 1956)

NBFCs registered with RBI *

Regulation, Supervision, Surveillance & Enforcement under RBI

NBFCs Regulated by Other Regulators

Type of Financial Institutions	Authority for Regulation, Supervision, Surveillance & Enforcement
Housing Finance Institutions	National Housing Bank
Merchant Banking Company, Venture Capital Fund Companies, Stock Broking, Collective Investment Schemes(CIS)	SEBI
Nidhi Companies, Mutual Benefit Companies	MCA
Chit Fund Companies	State Government
Insurance Companies	IRDA

Non Banking Non Financial Companies

Regulation, Supervision and Surveillance under the Companies Act 1956.

Regulator : Ministry of Corporate Affairs (MCA)

Enforcement Agency : State Governments

Context: The Reserve Bank of India (RBI) recently announced that it has increased the **risk weights** in respect of consumer credit exposure of **commercial banks and non-banking finance companies (NBFCs) by 25 percentage points to 125 per cent.**

Non-banking finance companies (NBFCs)

- **About:** NBFC is a company registered under the Companies Act, 1956 engaged in the business of loans and advances, acquisition of shares/stocks/bonds etc.
  - However, it **should not include** any institution whose **principal business is that of agriculture activity, industrial activity, purchase or sale of any goods** (other than securities) or providing any services and sale/purchase/construction of immovable property.
- **Difference between banks & NBFCs:**
  - NBFC cannot accept demand deposits;
  - NBFCs do not form part of the payment and settlement system and cannot issue cheques drawn on itself;
  - Deposit insurance facility of Deposit Insurance and Credit Guarantee Corporation is not available to depositors of NBFCs, unlike in case of banks.
- **Systemically important NBFCs:** NBFCs whose asset size is of ₹ 500 cr or more as per last audited balance sheet.
- **Registration & Regulations:** Depending upon the type of functioning, different NBFCs are differently regulated as mentioned in the image.

3-D PRINITING
(Syllabus: GS Paper 3 – Sci & Tech)

Printing in Three Dimensions

Nimisha Vaidya

Context: Today, an organ can be printed in a laboratory, with perfect specifications matching the patients' needs and successfully implanted in his body. This is the most recent and best application of 3-Dimensional Printing technology currently in use, though this technology is certainly not limited to the medical field.

Three-dimensional (3D) Printing:

- **Origin:** It was Charles Hull, a physicist, who patented the 'stereolithography' technique, now commonly known as 3D printing, in 1986.
- **Also known as:** Additive Manufacturing (AM).
- **Meaning:** It is defined as the technology that constructs a three-dimensional object by adding material **layer by layer.**
- **Working:** It uses computer-aided designing (CAD) to make prototypes or working models of objects by laying down successive layers.
- **Material used:** Almost anything such as plastic, resin, thermoplastic, metal, fibre, or ceramic etc.
- **Applications:**
  - **Consumer products** (eyewear, footwear, design, furniture)
  - **Industrial products** (manufacturing tools, prototypes, functional end-use parts)
  - **Healthcare**- dental products, prosthetics
  - **Architectural** scale models & maquettes
  - **Reconstructing fossils**
  - **Replicating ancient artefacts**
  - **Reconstructing evidence** in forensic pathology.

Strengths	Weakness
• Complex shapes and geometries • No tooling needed • Flexibility in changing design • Customized products • Reduce material waste compared to conventional methods • Increased supply chain proficiency	• Relatively poor surface finish • post processing operations • Requires knowledge of CAD software • Not a wide range of materials available • Relatively high costs of machinery and materials. • Significantly slow fabrication speeds. • Not fit for mass production • Lack of repeatability • The lack of multi-material deposition
Opportunities	**Threats**
• 3D printing of organs • AM of intelligent material • Nano-printing • Developing new materials • Extending applications to print spare parts directly in-situ. • Improving Process sustainability	• The lack of in process monitoring. • Reliability and standardization. • Hype and unrealistic expectations. • Ethical constraints (gun printing) • Cybersecurity risks (CAD drawing piracy) • Intellectual property/privacy issues

HINDUSTAN TIMES Page 09

CLIMATE FINANCE

(Syllabus: GS Paper 3 – Environment)

'G20 underlined importance of climate finance'

HT Correspondent
letters@hindustantimes.com

NEW DELHI: The New Delhi declaration of G20 countries released in September captured the importance of providing climate finance to developing countries, Union environment minister, Bhupender Yadav said at the Environment Minister's Session during the second edition of Voice of Global South Summit on Friday.

"Developed countries were reminded of their commitment to jointly mobilise $ 100 billion per year from 2020 for developing countries and doubling their contribution for adaptation finance from 2019 levels by 2025; and we extended support for operationalising the fund for addressing Loss and Damage," Yadav said.

The pandemic, geopolitical tensions and climate change impacts have disproportionately impacted developing countries and in some cases even reversed their development gains in past few years, Yadav said adding, there are unprecedented challenges facing the Global South.

"During the first (such) summit in January this year over 400 countries participated. Bridging the digital divide, arresting environmental degradation, achieving sustainable development goals, and growth with ecological harmony were key issues. During the first mission we invited countries to join PM Modi's Lifestyle for Environment mission," he said.



Bhupender Yadav

"India's G20 Presidency also catalysed disaster risk reduction through institutionalisation of the disaster risk reduction working group particularly for least developed countries and small island developing states," he added.

India has developed a compendium of best practices for dealing with land degradation especially in mining affected areas; launched the global bofuels alliance; and actively contributed towards fighting climate change despite contributing little to global warming historically and its current per capita emissions being one third the global average, Yadav said.

"India has made ambitious commitments and has led by ambitious domestic actions. We are among few economies well on our way to meet our nationally determined contributions. We have achieved 44% of non-fossil fuel electrical capacity this year. This target has been enhanced to 50% in our updated NDC," he added.

HT reported on September 11 that the New Delhi Leaders' Declaration captures the intent of the G20 countries, responsible for 80% of global greenhouse gas emissions, to meet Paris Agreement goals but doesn't lay down clearly as to how they will do it.

Context: The **New Delhi declaration of G20** countries released in September 2023, captured the importance of providing **climate finance to developing countries**, Union environment minister recently said at the Environment Minister's Session during the second edition of **Voice of Global South Summit.**

Climate Finance

- **Definition**: It describes the financial resources produced to support initiatives that diminish the effects of global warming and help people adapt to them. This involves public climate finance pledges made by industrialised nations under the UNFCCC, corporate sector investment, and regional resources.

Global Climate Financial Mechanisms

- **Global Environmental Facility**: The GEF, established on the eve of the 1992 Rio Earth Summit, is a catalyst for action on the environment. Through its strategic investments, the GEF works with partners to tackle the planet's biggest environmental issues.
- **Least Developed Countries Fund (LDCF):** The Least Developed Countries Fund (LDCF) was established in 2001 to support a work programme to assist Least Developed Country Parties (LDCs) carry out, inter alia, the preparation and implementation of national adaptation programmes of action (NAPAs).
- **The SCCF, or Special Climate Change Fund:** It was created in 2001 to address the specific needs of developing countries under the UNFCCC to adapt to the impact of climate change and increase resilience.
- **The Adaptation Fund (AF):** The Adaptation Fund (AF) was established in 2001 to finance concrete adaptation projects and programmes in developing country Parties to the Kyoto Protocol that are particularly vulnerable to the adverse effects of climate change.
- **Clean development mechanism**: The Clean Development Mechanism (CDM), defined in Article 12 of the Protocol, allows a country with an emission-reduction or emission-limitation commitment under the Kyoto Protocol (Annex B Party) to implement an emission-reduction project in developing countries.
- **The Green Climate Fund (GCF)**: It was set up in 2010 under the UNFCCC's financial mechanism with aim to expand collective human action to respond to climate change.
- **The Climate Investment Funds (CIFs):** It is a multilateral fund established in 2008 to finance and scale climate pilot projects in developing countries.

TOI

Page 11

DEEPFAKES

(Syllabus: GS Paper 3 – Sci & Tech)

Deepfakes can create crisis in diverse society like ours: PM

'AI Developers Should Tag Such Products To Caution People'

Diwakar & Akhilesh Singh | TNN

New Delhi: Prime Minister Narendra Modi on Friday flagged the dangers of 'deepfakes' and said the developers of artificial intelligence should consider tagging their products to caution people about AI-enabled deception.

"A new crisis is emerging due to deepfakes produced through artificial intelligence. We have a big section that does not have the wherewithal to verify their genuineness and there lies the concern," Modi said, adding that he had raised the matter with people in the AI industry.

"I suggested to them that they should consider tagging AI-generated content that is vulnerable to misuse," PM Modi said in a likely reference to his meeting with Sam Altman, the founder of Open AI and the developer of ChatGPT, in June. The conversation had seen Modi pitching for soft touch regulation of the AI industry.



The PM cited a deepfake video showing him in a garba dance

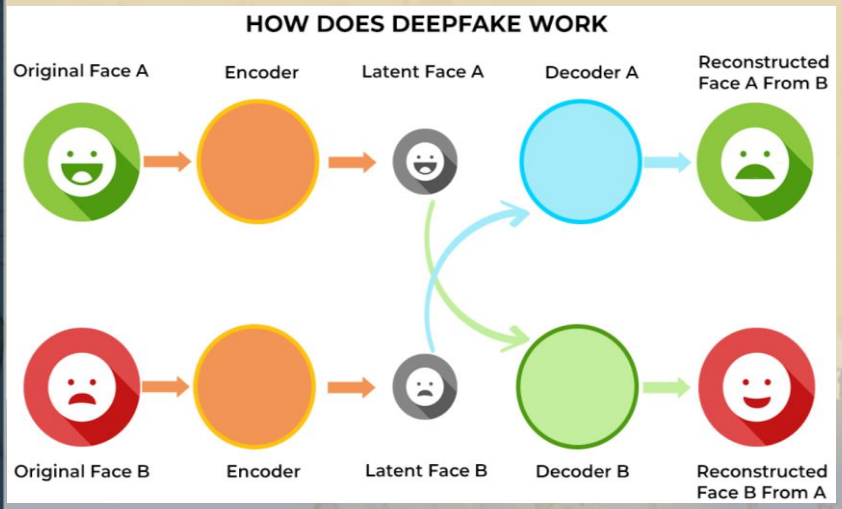
Open AI, along with other artificial intelligence biggies like Alphabet and Meta, have been watermarking their AI-generated content and what started as voluntary pledges have turned into legal obligation by an executive order of the US President.

Interestingly, the Prime Minister cited a deepfake video showing him participating in a garba dance during Navratri festivities that has gone viral. "They have done it rather well. It is a different thing that I have not played garba for long. I used to play garba during my childhood, and I was good at it. But I stopped playing after my school. However, thanks to artificial intelligence, I can be playing garba, and many of my own followers are forwarding the clip," he said.

In a deepfake video or photo, a person's face or other body parts are super imposed on someone else's to pass it off as authentic. A few celebrities like Rashmika Mandanna have recently fallen victim to deepfake. The proliferation of deepfake videos on social media has raised significant concerns, prompting the government to issue comprehensive guidelines to social media companies to address identification and removal of misleading and deepfake videos and photographs.

The Prime Minister said that in a diverse society like India, deepfakes could cause a big crisis and could spread disaffection among people. "Since our Independence, there is a legacy of trust about the media and people start believing that there might be some truth. Therefore, we are heading towards a serious crisis, as by the time the truth comes out, it becomes too late," Prime Minister Modi said and suggested that the media could play a bigger role and promptly highlight the truth.

The Prime Minister recalled his meeting with a group of experts from ChatGPT and said they were equally concerned and were looking at containing the technology's misuse. "I suggested that just like there is a provision of a disclaimer that cigarettes are hazardous for health, in the same way, there should be prompt mention of 'deepfake'," the PM added.



Context: Prime Minister of India recently flagged the dangers of 'deepfakes' and said the developers of artificial intelligence should consider tagging their products to caution people about AI-enabled deception.

Deepfakes

- **About**: Deepfakes refer to synthetic media, which includes videos, images, or audio recordings generated and altered using advanced artificial intelligence techniques, particularly deep learning algorithms.
- **Working**: The term 'deepfake' combines 'deep learning' and 'fake.' It involves:
  - The use of deep neural networks that can learn and replicate patterns from extensive datasets.
  - It employs a branch of artificial intelligence where if a computer is fed enough data, it can generate fakes which behave much like a real person.
- **Regulation:**
  - India does **not have specific laws or regulations** that ban or regulate the use of deepfake technology.
  - Sections 67 and 67A of the **Information Technology Act (2000)** related to defamation and publishing explicit material is applied in cases of deepfakes.
  - **India's IT Rules, 2021** require that all content reported to be fake or produced using deep fake be taken down by intermediary platforms within 36 hours.

BUSINESS STANDARD

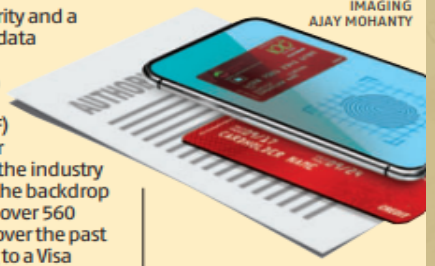
Page 2

CARD TOKENISATION

(Syllabus: GS Paper 3 – Economy)

Reduced risk of data breach the main benefit of tokenisation: Visa

IMAGING AJAY MOHANTY



Enhanced security and a reduced risk of data breach have emerged as top benefits of Card on File (CoF) tokenisation for customers and the industry respectively in the backdrop of India issuing over 560 million tokens over the past year, according to a Visa report. Card payments major Visa said the company had issued 300 million tokens out of 560 million in the country since October 2022.

"This is a substantial portion of its over 7.5 billion tokens issued globally, leading to card authorisation rates rising by 4.5 per cent since the introduction of tokenisation," Visa's report titled 'Enabling the Digital Shift: Tokenisation in India's Economic Landscape' said.

Increased trust in digital payments, improved payments experience, reduced fraud rates, and simplified compliance were the top benefits of CoF tokenisation, according to the aforementioned report which surveyed industry executives across card issuers, payment acquirers and processors, and merchants.

The RBI defines tokenisation as the replacement of actual card details with an alternate code called the 'token', which is a unique combination of a card, token requestor, and a device. A tokenised card transaction is safe as the card details are not shared with anyone including the merchant during the processing of a transaction.

AJINKYA KAWALE

THE ADVANTAGES

Benefit	% of respondents
Enhanced Security	88
Increased trust in digital payments	65
Improved payments experience	47

Challenges organisations encountered while adopting tokenisation

Benefit	% of respondents
Complex integration	76
Operational clarity of regulatory guidelines	59
Customer education and awareness	59

Context: Enhanced security and a reduced risk of data breach have emerged as top benefits of Card on File (CoF) tokenisation for customers and the industry respectively in the backdrop of India issuing over 560 million tokens over the past year, according to a Visa report.

Card Tokenization

- **About:** Card tokenization is a simple process of **anonymizing sensitive information** on a recipient's card (like the card number, expiration date, and security code) with a personalised and unique identifier, or a token, which acts as a stand-in for the actual card data and can be used for all transactions.
- **Working**: Tokenization begins when consumers enter their card information on a website or mobile application and agree to store their card details by giving explicit consent to the merchant.
  - Post-consent, instead of retaining the real card information, the payment gateway or the merchant generates a token through card networks, issuer banks, or specialised tokenization platforms.
  - This tokenization technology generates a unique token associated with the card details and every merchant and instantly returns it to the merchant. From then on, the merchant only uses the token, keeping sensitive information out of their systems.
- **Advantages of tokenization:**
  - **Security**: Tokenization enhances security by replacing sensitive data with unique tokens, reducing the risk of data breaches.
  - **Compliance**: Helps organizations comply with data protection regulations by minimizing the storage and handling of sensitive information.
  - **Fraud Prevention**: Reduces the risk of fraud as tokenized data is meaningless without the corresponding tokenization system.
  - **Streamlined Transactions**: Improves transaction efficiency by using lightweight tokens instead of bulky sensitive data.
  - **Enhanced Privacy**: Protects customer privacy by minimizing the exposure of personal information during transactions.

LIVE MINT

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DIGITAL PUBLIC INFRASTRUCTURE

(Syllabus: GS Paper 2 – Governance)



‘DPI resources can be shared’

India willing to help global south advance financial inclusion and productivity gains, says Ajay Seth

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NEW DELHI

The success and increasing global acknowledgement of the Indian government's digital public infrastructure (DPI), otherwise known as the India Stack, is prompting New Delhi to offer to share its knowledge and resources with others, especially the Global South. At the virtual second Voice of Global South Summit, economic affairs secretary Ajay Seth said India is ready to help the global south to advance financial inclusion and productivity gains. "India stands ready to share its technical capabilities and knowledge resources for empowering the people of the global south," Seth said at the summit, adding that the G20 financial inclusion plan, under India's presidency, prioritises the deepening of engagement with the global south.

The India Stack is a collection of digital platforms such as Aadhaar, DigiLocker, DigiYatra, UPI, and other platforms that have been developed through collaboration between government, private companies, volunteers, startups and academic institutions.

The success of some popular DPI programmes such as CoWin, UPI, Digilocker and Diksha (national digital infrastructure for teachers) has prompted New Delhi to seek its own rating and testing mechanism for DPIs and DPGs (digital public goods).

While DPIs enable a seamless and efficient way for citizens to access government services and promote inclusive development, DPGs are types of open-source software, models and standards that are used to operationalise DPIs. Without DPGs, DPIs wouldn't be a reality.

In August, *Mint* had reported that India is working with multilateral forums, including the UN and the G20, to create collaborations that would certify, register, test and benchmark Indian DPIs and DPGs, as it wants to export some of its DPIs and DPGs to other countries with relative ease.

On another note, Seth said that a multitude of challenges are holding back global recovery efforts and progress on SDGs (sustainable development goals).

"Today we have come together again to explore how the global south can maintain the momentum generated by the first Voice of Global South Summit and the G20 New Delhi leaders' summit to advance our efforts towards people centric financing for development," he said. "While we have made significant strides, challenges persist and require stronger collaboration."

Ajay Seth, economic affairs secretary

SOUTHERN STACK

INDIASTACK is a collection of digital platforms such as Aadhaar, DigiLocker, DigiYatra and UPI

DPIS enable an efficient way to access govt services, promote inclusive development

INDIA is working with multilateral forums to create collaborations on DPIs and DPGs

Resistance to Global South: Jaishankar

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NEW DELHI

External affairs S. Jaishankar on Friday said there continues to be resistance to countries in the Global South shaping solutions to global challenges.

"As we look ahead, our vision of everyone's growth, with everyone's trust, is far from accomplished. While change is the natural order, there continues to be a resistance for a greater role for the Global South in shaping solutions for the key issues of our times," Jaishankar said at the second edition of the Voices of the Global South summit.

The summit was held first in January this year to accommodate developing country views into India's G20 Presidency. Leaders from Bhutan, Bangladesh, Kenya, Kyrgyzstan and Nauru, among others, attended the summit.

"The New Delhi Leaders' Declaration will be remembered for bringing back the G20 focus on the real and serious concerns of the Global South," Jaishankar added.

He also urged developing countries to build up self-reliance. "We also need to work towards self-reliance to mitigate our vulnerabilities vis-a-vis economic concentrations. The covid era is a stark reminder of the perils of dependence for basic necessities on far-away geographies," Jaishankar argued.

He highlighted the need to "democratize and diversify" production and to build resilient supply chains. The minister also pointed to concrete breakthroughs for the Global South during India's G20 Presidency by highlighting the African Union's entry into the G20 as a permanent member.

S Jaishankar, external affairs minister. PTI



Context: The success and increasing global acknowledgement of the Indian government's **digital public infrastructure (DPI),** otherwise known as the **India Stack**, is prompting New Delhi to offer to share its knowledge and resources with others, especially the Global South.

Digital public infrastructure (DPI)

- **About:** It is a set of technology building blocks that drive innovation, inclusion, and competition at scale, operating under open, transparent and participatory governance.
- **Examples**: Internet, powered by common protocols like HTTP, HTML, and SMTP.
- **Key Features**: It can be developed either as all government or all private.
  - Interoperability, security, maintaining registries and continuous updates are its vital aspects.

Initiatives taken by India in digital sphere

- **Aadhaar**: Launched in 2009, Aadhaar is a 12 digit unique-identity number issued to all Indian residents based on the biometric and demographic data, and acts as a proof of residence.
- **Digital India initiative**: In 2015, the ‘Digital India’ initiative was launched to improve online infrastructure and increase internet accessibility among citizens.
- **PM-WANI**: It was launched in 2020 to provide ubiquitous and affordable internet connectivity.
- **India Stack**: It is an online global public digital goods depository to ensure no one is left behind.

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