

# YOJANA SUMMARY

## **G20 – ONE NATION. ONE FAMILY. ONE FUTURE**

NOVEMBER 2023

**G20 FR FOR THE PLANET, PEOPLE, PEACE AND PROSPERITY**

- India's G20 Presidency is a landmark, successfully championing both the climate and development agendas, and recognising that countries should not have to choose between poverty alleviation and environmental protection.
- The presidency achieved an extraordinary feat-a **New Delhi Leaders' Declaration** (NDLD) comprising 83 paragraphs, with **no voice of dissent**.

**New Delhi Leaders' Declaration**

- The declaration represents a fundamental shift in focus, from conflict and division to development and cooperation.
- It showcases India as a global leader dedicated to enhancing policy and regulatory coherence among G20 countries.



- **Strong, Sustainable, Balanced, and Inclusive Growth**
  - The Declaration foregrounds the need for strong, sustainable, balanced, and inclusive growth, with a clear recognition of the pivotal role of private enterprises, notably (MSMEs) and startups, in fostering innovation and employment opportunities.
  - It advocates for the promotion of trade and investment policies, along with the reform of the World Trade Organization (WTO).
  - The Declaration commits to addressing skill gaps, promoting decent work, and accessing to opportunities and resources to achieve sustainable development.
- **Fight against corruption**
  - The Declaration reiterates a steadfast commitment to fostering transparency, accountability, and integrity in both public and private sectors.
- **Accelerating Progress on the SDGs**
  - The latest UN SDG Report reveals that only 12% of SDG targets are on track, while 30% have stagnated or regressed since 2015.
  - The looming 1.5°C temperature increase, driven by alarming trends like the loss of 50 million hectares of forests from 2015 to 2020 and rising weather- related disasters, disproportionately impacts the developing world.
  - Post-Covid recovery poses additional challenges, with global economic conditions marked by high inflation, tight monetary policies, restrictive credit, and mounting debt distress in many developing nations.

- Under India's Presidency, an action plan for accelerating SDG progress has been delivered, taking a cross-cutting approach and emphasising the critical role of data in driving development.
- The endorsement of ***G20 Principles on harnessing Data for Development (D4D)*** reinforces this commitment.
- The ***G20 Deccan High-Level Principles (HLPs) on Food Security and Nutrition 2023***, along with the ***promotion of ancient grains like millets***, hold the promise of ensuring global food and nutritional security-an essential aspect of sustainable development.
- India's G20 presidency recognised the profound impact of climate change on health and established a ***Global Initiative on Digital Health***.
- The '***G20 2023 Action Plan to Accelerate Progress on the SDGs***' is a milestone achievement, promoting equitable, sustainable, and inclusive economic growth while addressing challenges like access to finance and technology.
- **Green Development Pact and Mission LiFE**
  - The declaration includes the '**Green Development Pact**'- a comprehensive roadmap for the next decade to address the environmental crisis through global cooperation.
    - Through this pact, the G20 leaders pledge to pursue environmentally sustainable and inclusive economic growth and development benefiting the Global South.
    - They call upon all countries to align their Nationally Determined Contributions (NDCs) with the Paris Agreement's temperature goals and encourage economy-wide greenhouse gas (GHG) reduction targets in future NDC cycles.
    - The G20 countries also commit to enhancing climate action across mitigation, adaptation, and means of implementation and support, including a successful conclusion to **the global stocktake at COP28**.
  - In the energy transition, the ***G20 has agreed to High-Level Principles (HLPs) on hydrogen, critical mineral collaboration, a global biofuels alliance***, and efforts to triple renewable energy capacity, among other initiatives.
  - The pact also includes ***HLPs on Lifestyles for Sustainable Development*** contributing to significant emission reductions by 2030.
- **Climate Finance**
  - These pacts call for substantial financial and technological support from the Global North to combat climate change and support sustainable development.
  - The declaration urges nations to set a **New Collective Quantified Goal of climate finance by 2024, starting at £100 billion, and advocates for doubling collective adaptation finance compared to 2019 levels by 2025**.
  - Major developed economies have finally recognised the monumental resources required-£5.9 trillion by 2030-for developing countries to meet their NDCs, and an additional annual £4 trillion for clean energy technologies.
- **Multilateral banks**
  - The G20 emphasises the **importance of better, larger, and more effective Multilateral Development Banks (MDBs)**.
  - It explores measures such as currency exchange guarantees and disaster clauses in debt repayment agreements to create a more responsive international development finance system.

- **Technological Transformation and Digital Public Infrastructure**
  - India's developmental model has garnered global recognition. The profound influence of digital public infrastructure (DPI) in India is unmistakable.
    - Whether it's digital payments, Co-Win, DigiLocker, or Direct Benefit Transfers (DBT), technology is playing a major role.
  - This journey has played a pivotal role in establishing a consensus on the **G20 Framework for Digital Public Infrastructure**, enabling nations worldwide to embrace, develop, and scale similar DPI systems.
  - Through the collaborative efforts of the **One Future Alliance**, India is extending support to Low and Middle-Income Countries (LMICS), providing both capacity-building and financial assistance to foster the growth of their DPI systems.
  - This collective endeavour aims to empower nations to harness the potential of digital infrastructure for the betterment of their societies.
- **Gender Equality and Empowering All Women and Girls**
  - This declaration champions women-led development, economic and social empowerment, gender-inclusive climate action, and women's food security.
  - The G20's commitment to women empowerment is exemplified by the establishment of the **Women's Working Group.**
    - The first meeting of this group is set to take place during the Brazilian Presidency.
- **The Voice of the Global South**
  - At the heart of India's advocacy was the inclusion of the African Union (AU) as a permanent member of the G20.
    - The Global South, and notably Africa, is poised to drive a staggering 80% of global economic growth, as per the International Monetary Fund (IMF).
  - A pivotal moment in India's G20 presidency was the 'Voice of the Global South Summit!'
- **A People's G20**
  - Through Jan Bhagidari events, citizens from across the nation actively engaged in G20-related events and activities.
  - Jan Bhagidari went beyond participation numbers, encompassing a range of engaging activities, from university lectures to interactive Model G20 meetings, pavilions at festivals, quiz contests, food festivals, and more. Working Groups introduced innovative methods like cyclothons and rallies to enhance public involvement.
  - Further, the **Engagement Groups** played a vital role in involving citizens in the G20 narrative and contributing expertise and perspective from civil society towards the final formulation of the NDLD.
  - Groups like **Labor20, Science20, and Youth20** also saw substantial citizen participation, with innovative activities spanning diverse regions.

### Conclusion

- In an increasingly divided world, India's people-driven and human-centric G20 Presidency demonstrated the power of collective action.
- The Prime Minister referred to it as a **people's presidency**, embodying the spirit of the world's largest democracy in shaping a more equitable global future.

**BHASHINI APP: BRIDGING THE DIGITAL DIVIDE WITH LANGUAGE DIVERSITY**

- A Russian delegate at the G20 summit was pleasantly surprised when the **Bhashini** responded to his query in his mother tongue. The delegate felt at home conversing with the machine and was able to get all the required information on the G20 finance track in Russian.
- The **Bhashini and its Bot Jugalbandi** were borne out of the Ministry of Electronics and Information Technology's initiative.
- This was in accordance with the theme of India's G20 presidency, 'One Earth, One Family, One Future', which focuses on inclusivity. **Bhashini promotes this by breaking the language barriers.**

**Key Highlights of BHASHINI**

- At its core, Bhashini is a digital symphony, harmonising with Indian languages.
- It provides a welcoming embrace of familiarity, offering voice-based access to the digital universe.
- Its mission is to **empower every Indian with the ability to navigate the internet and access digital services in their native language**.
- Bhashini is more than just a gateway; it's a hub of collaboration and community.
  - In its **Bhasha Daan section**, individuals from diverse walks of life converge to contribute to a plethora of crowd sourcing initiatives.
- It can ensure the last-mile delivery of services using the platform in the language and dialect the people speak.
- It can also be utilised to help fill out the forms in their own dialect through the feature phone (IVR).

**Madhubani painting**

Madhubani painting is a **Geographical Indication (GI)- tagged** art form that originated in the Mithila region of Bihar.

It is one of the oldest and most vibrant art forms in India, with a history that can be traced back over 2,500 years.

Artists use only natural pigments and brushes made from twigs to create these visually captivating and culturally significant artworks.

**INDIA'S RISING INFLUENCE G20 SUMMIT PUTS INDIA ON THE WORLD STAGE**

India's G20 Presidency stands as a monumental achievement in the annals of global diplomacy. At its core, this success is attributed to the decentralized and democratized G20 process.

**India's Presidency In Challenging Environment**

The international order was beset with a unique set of crises; the impact of the Covid pandemic, exacerbated by the Ukraine conflict, brought about the threat of global recession, high inflation, and energy, food, and debt crises.

The G20 represents around **85% of the global GDP**, over **75% of global trade**, and about two-thirds of the world population.

**India's Approach**

- **Human-centric**
  - India **prioritised a human-centric and democratic approach** during its presidency.
  - India's G20 journey started with a mission to showcase our nation's celebration of diversity and demonstrate how this diversity can serve as a unifying force on the global stage.

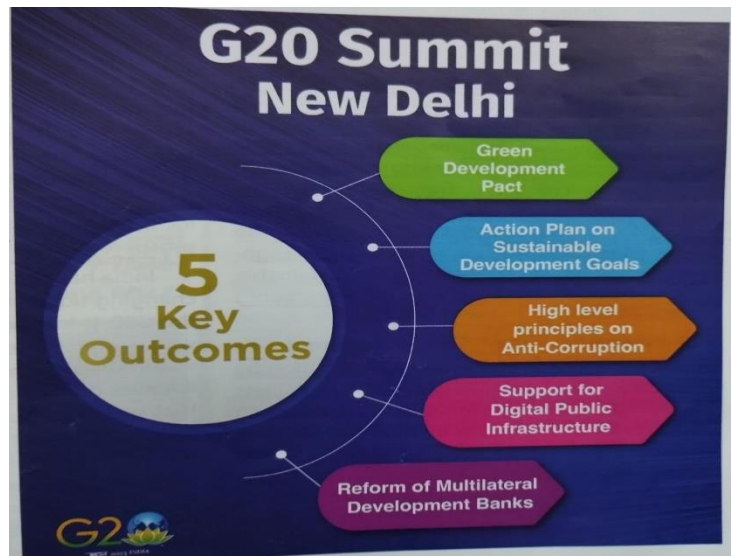
**Landmark Initiatives Launched**

- ❖ India – Middle East – Europe Economic Corridor (IMEC)
- ❖ Global Biofuel Alliance

- Spanning 37 different areas of human endeavour, including education, agriculture, trade, culture, and women's development, the Jan Bhagidari initiative brought global ideals to everyday lives.
- **Involvement of states**
  - Over 200 G20 meetings were held across the length and breadth of India. Through this expansive pan-India approach, each state had the opportunity to leave an indelible cultural imprint on the minds of visiting delegates.
  - This transformative approach not only welcomed the world to India but also allowed India to project its best practices on the global stage.
- **Whole-of-government and whole- of-society approaches**
  - By harnessing whole-of-government and whole- of-society approaches, an India previously unseen was unveiled.
- **People's G20**
  - India's transformation of the G20 into a 'People's G20' exemplified this philosophy in action.
  - Over 1.5 crore citizens participated in the G20 process **through Jan Bhagidari or Citizens Engagement events**.
  - The **G20 University Connect Programme** directly involved 101 universities and lakhs of students across the country, and even India's G20 logo itself was crafted from the collective ingenuity of thousands of Indians.
  - Comprehensive G20 information was made available through the dedicated G20 website and mobile application, monthly newsletters, and social media.

### Outcome

- An impressive **112 outcomes** and presidency documents were produced under India's leadership, more than doubling the substantive work of previous presidencies.
- The 83-paragraph declaration symbolizes a concerted effort to address global challenges.
- The New Delhi Leader's Declaration has a significant India footprint with the adoption of:
  - The Deccan High-Level Principles on Food Security and Nutrition,
  - The Chennai High-Level Principles for Blue/Ocean Economy,
  - The Goa Roadmap for Tourism,
  - The Gandhinagar Implementation Roadmap for Land Restoration, and
  - The Jaipur Call for Action to Enhance MSMEs Access to Information.
- The greatest achievement was the acceptance of India's proposal to welcome the African Union as a permanent member of the G20.
- India led the creation of a **Global Digital Public Infrastructure Repository**, a 'virtual stack' where non-G20 and G20 countries alike can voluntarily share their open-source mechanisms to drive a mutually beneficial ecosystem.



- Its proposal to create '**One Future Alliance**' was also welcomed.
  - The alliance is a voluntary initiative aimed at building capacity and providing technical assistance and adequate funding support for implementing digital public infrastructure in low and middle- income countries.
- The G20 committed to enhancing global food security and nutrition by welcoming India's proposal for the **G20 Millets and other Ancient Grains International Research Initiative** (MAHARISHI), which focuses on climate-resilient grains.
- India's strong leadership in climate action secured a resolute commitment from developed countries within the G20, assuring that they will uphold their promise to provide \$100 billion annually from 2020 to 2050, starting in 2023.
- New initiatives, such as Startup 20, Disaster Relief Reduction Group, and meetings on Cyber Security, also reflected India's proactive approach during its G20 Presidency.

### Conclusion

- By prioritising the developmental agenda within the G20, India has paved a roadmap towards a more resilient and inclusive economic order, setting the stage for a prosperous and equitable future for all.
- As India passes the torch, it leaves behind a formidable legacy of leadership that will continue to exert a profound influence on the G20 and the world, shaping a brighter and more harmonious path forward for generations to come.

### GREEN DEVELOPMENT PACT ROADMAP TO A SUSTAINABLE FUTURE

The basic principle of sustainable development is to strike a balance amongst the economic, environmental, and social dimensions of developmental pathways in such a manner that present and emergent needs are addressed while safeguarding the interests of future generations.

#### G20 Presidency And Sustainable Development

- As India took up the G20 Presidency in December 2022, climate and environmental sustainability were identified as core topics.
- **Green Development Pact adopted**
  - **G20 leaders adopted the Green Development Pact** through the New Delhi Leaders' Declaration.
  - The Prime Minister's articulation of Mission LIFE - Lifestyle for Environment, found huge resonance in all G20 countries.
  - The Green Development Pact has placed major emphasis on ecosystem restoration.
  - The commitment to **restoring by 2030 at least 30% of all degraded ecosystems** and scaling up efforts to achieve land degradation neutrality speaks about the seriousness with which the G20 accords to the challenge of environmental degradation.
  - Commitment towards prevention and mitigation of forest fires and remediation of mining-degraded lands was a key element of the Declaration.
  - All members supported the G20 ambition **to reduce land degradation by 50% by 2040 on a voluntary basis** and noted the **Gandhinagar Implementation Roadmap and Gandhinagar Information Platform** in this context.
- **Green Development Pact and Technology**
  - The Green Development Pact accorded recognition to the latest science.

- It also recognized to the fact that technology development and transfer on voluntary and mutually agreed terms, capacity building, and financing are imperative for long-term, meaningful impact.
- The multi-year **G20 Technical Assistance Action Plan (TAAP)** and the voluntary recommendations made to overcome data-related barriers to climate investments saw G20 endorsement, which is an equally important milestone.
- The Pact also aims to streamline efforts to build resilience against disasters through the institutionalization of the Disaster Risk Reduction (DRR) Working Group.
  - It was also recognised that resilient urban infrastructure is a key requirement for making cities of today future-ready.
- **G20 and Circular economy**
  - The G20 focused on the critical role played by the circular economy, extended producer responsibility, and resource efficiency in achieving sustainable development.
  - The Indian Presidency launched the **Resource Efficiency and Circular Economy Industry Coalition (RECEIC)**, and this initiative was also acknowledged by the G20 leaders.
    - A circular economy can create jobs in various sectors, including repair, remanufacturing, recycling, and waste management, and thus stimulate economic growth.
    - The most significant benefit of a circular economy is the reduction in waste generation.
- **High-Level Principles adopted**
  - The G20 adopted the High-Level Principles for a Sustainable and Resilient Blue/Ocean-based Economy and expressed determination towards harnessing the potential of seas and oceans in a Sustainable manner.

### Conclusion

The implementation of the Green Development Pact will further strengthen the G20 member states' efforts towards achieving SDG targets.

### DESIGNING A CIRCULAR ECONOMY WORLD

- The world's population may be near 10 billion by 2050. To support population needs, the annual global extraction of materials has already grown to 70 billion tonnes (2010).
  - It is expected to roughly double by 2060.
- In less than eight months this year, humanity's demand for ecological resources and services exceeded what Earth can regenerate in 2023, and our rate of consumption continues to grow.
- This is increasing pressure on the planet's finite natural resources. Hence, adopting more sustainable lifestyles will be critical to reaching our climate and nature ambitions.
- This is in line with the **Sustainable Development Goal on Responsible Consumption and Production (SDG 12)**.

### About Circular Economy

- Circularity' is a concept where materials are used for as long as possible at the highest possible value. **Circularity covers the entire lifecycle of products.**
  - I.e., from designing products to be long-lasting and repairable to ensuring that materials can be recovered through recycling and thus maintained in the economy at the end of a product's lifecycle.
- The main goal of circularity is to reduce the harmful environmental and socio-economic impacts of unsustainable consumption and production. It also includes **minimising waste generation**.



- A circular economy provides opportunities for societies by creating green jobs and circular business opportunities.
- Evidence indicates that two-thirds of greenhouse gas emissions are directly associated with households and lifestyles.
  - Four areas essential to achieving sustainable and low-carbon lifestyles are mobility, housing and energy use, dietary choices, food, and new business models.

According to a report by UNEP, over the past 15 years, **fashion consumption has more than doubled**, while the number of times a garment is worn before being discarded has decreased by 36%.

Every second, the equivalent of a garbage truck full of clothes, which amounts to an estimated value of \$460 billion, is thrown away around the world.

#### Enhanced Focus Of G20 Nations On Circularity

- G20 India presidency adopted the High-Level Principles on Lifestyles for Sustainable Development.
- The High-Level Principles acknowledge the critical role played by the circular economy and resource efficiency in achieving sustainable development.

#### India's Proactive Measures Towards Circular Economic Growth

- As per one report, the transition to circular economic growth can generate a net economic benefit of approximately an annual value of USD 624 billion in India by 2050, relative to the business-as-usual scenario.
- Some of the initiatives undertaken by India include:
  - the Draft National Resource Efficiency Policy (2019),
  - the Steel Scrap Recycling Policy,
  - the Vehicle Scrapping Policy, and
  - recently developed sectoral action plans on circular economy.
- The recently notified **Guidelines on Extended Producers Responsibility (EPR) on plastic packaging** under the Plastic Waste Management Rules 2016 provide a framework to strengthen the circular economy of plastic packaging waste.
- India is also a member of the **Global Alliance on Circular Economy and Resource Efficiency (GACERE)**.
  - GACERE is a coalition of governments willing to work together and advocate for a global, just circular economy transition and more sustainable management of natural resources.
  - GACERE is supported by UNEP and UNIDO and was **launched in February 2021**, on the margins of the first segment of the fifth United Nations Environment Assembly.
- India launched the **Resource Efficiency and Circular Economy Industry Coalition**.
  - The coalition seeks to enhance collaboration among businesses, facilitate experience sharing, capacity building across sectors and value chains, and enhance actions for the circular economy transition.
- **Mission LiFE**, launched by India in October 2022, is a global movement based on three principles:
  - nudging behaviours towards responsible consumption (demand),
  - enabling markets to respond swiftly to changing needs (supply), and
  - influencing government and industrial policy to support these initiatives (policy).
- Sustainable tourism can also play a significant role in accelerating the transition to low-carbon and circular business solutions.
- **Travel for Life**, a programme aligned with Mission LiFE, aims to bring large-scale behavioural change amongst tourists and tourism businesses.

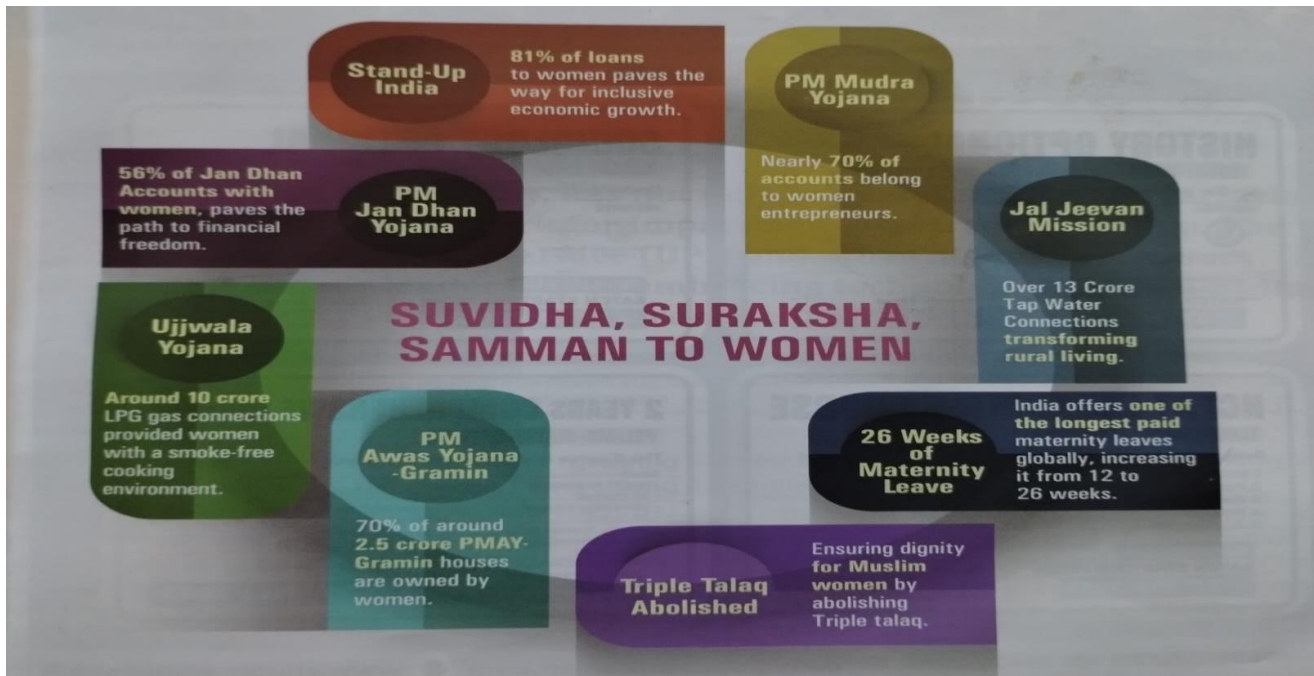
- The New Delhi Leaders' Declaration notes the role of 'Travel for LIFE' in the development of smart destinations that are responsible and sustainable.
- India joined the **Global Tourism Plastics Initiative (GTPI)**.
  - GTPI aims to unify the tourism sector behind a common vision for a circular economy of plastics and to collaborate with tourism businesses and destinations to develop concrete solutions to tackle plastic pollution.

### NARI SHAKTI VANDAN ADHINIYAM: NATION CELEBRATES

- Empowers her voice with 33% seats for women in Lok Sabha and State Assemblies.
- Reservation for SC and ST women within the reserved quota.
- The Act reaffirms the commitment of Prime Minister Narendra Modi towards gender equality and inclusivity.
- This legislation fosters female leadership paving the way for women in high-stakes decision-making.

### NARI SHAKTI MARCHING AHEAD

- Permanent commission granted to women officers in Defence services.
- Sainik schools now open to girls.
- Armed Forces have opened entry for women candidates in National Defence Academy (NDA).
- First time ever deployment of rifle women along the LoC in J&K.
- India has the highest number of female pilots across the world.
- Chandrayaan-3, saw more than 100 women play a significant role in executing the mission.
- 43% of STEM graduates in India are women which is highest in the world.



### DIGITAL PUBLIC INFRASTRUCTURE & PUBLIC PARTICIPATION

- In a world marked by growing digitalisation, the demand for a strong Digital Public Infrastructure (DPI) has become vitally important.

- The G20 Leaders' Declaration under India's Presidency on **Technological Transformation and Digital Public Infrastructure** underlines the central role that technology plays in bridging digital divides and cultivating inclusive and sustainable development.
- The G20 New Delhi Leaders' Declaration emphasises the importance of safe, secure, and inclusive DPI.

#### **DPI in India**

- India plans to build and maintain a **Global Digital Public Infrastructure Repository (GDPIR)**, a digital storage of DPI.
- In India, the adoption of Digital Public Infrastructures (DPIs) like Aadhaar, alongside Jan Dhan bank accounts and Mobile phones, is recognised to have played a pivotal role in shifting ownership of transaction accounts.
- The JAM Trinity has accelerated the rate of financial inclusion, increasing it from 25% in 2008 to more than 80% within the past six years.

#### **Government-to-Person programmes & Unified Payments Interface**

- India has established one of the **world's largest digital Government-to-Person (G2P) architectures** by utilising DPI. This approach has facilitated the transfer of approximately Rs 32.29 trillion directly to beneficiaries till date.
- Similarly, **India's Unified Payments Interface (UPI)** stands as a swift and instantaneous payment network within India, with over 10.586 billion transactions, totalling approximately Rs 15.76 trillion, recorded in August 2023.
  - The UPI-Pay Now linking India with 11 countries is in line with the G20's focus on financial inclusion.

#### **India Stack & Account Aggregator (AA) System**

- India Stack, the fundamental DPI of India, has been effectively utilized to encourage innovation, promote healthy competition, expand market reach, address financial inclusion disparities, bolster government revenue collection, and enhance the efficiency of public expenditure.
- India's Account Aggregator (AA) system lets people have control over their own financial information. No data can be shared without the individual's consent.

#### **Key Initiatives**

- 1. Digital India Initiative & BharatNet Project:** As of 11 September 2023, the Bharat Net project has successfully linked 202,028 Gram Panchayats, with 658,685 kilometres of optical fibre cables (OFC) installed.
- 2. Pradhan Mantri Jan Dhan Yojana (PMJDY):** As of 13 September 2023, under the PMJDY, the total number of beneficiaries across different types of banks, amounted to 50.41 crore.
  - Among these beneficiaries, 27.98 crore were rural-urban females.
  - The cumulative deposits in their accounts reached a total of Rs 20,494.18 billion, with 34.26 crore Rupay Debit Cards issued to the beneficiaries.
- 3. Make in India:** The Make in India initiative has bolstered India's self-reliance in technology, reducing dependency on imports.
- 4. Startup India:** Including 99,380 DPIIT recognised startups and a user base of 664,486 on the Startup India Portal, it provides crucial support to startups, including access to funding, mentorship, and regulatory reforms.
  - As of 31 May 2023, India accommodates 108 unicorns, accounting to a combined valuation of \$340.80 billion
- 5. Smart Cities Mission:** The Smart Cities Mission integrates digital infrastructure components.
- 6. Aadhaar:** The Aadhaar project plays a crucial role in enabling digital services and identity verification.

**7. UMANG & DigiLocker:** The UMANG app serves as a digital public infrastructure that provides secure and inclusive access to a wide range of government services. Similarly, DigiLocker aims to advance paperless governance by providing citizens with authentic digital documents from various issuers, stored in their locker accounts.

**8. Central Bank Digital Currency (CBDC):** The launch of e-R by the Reserve Bank of India (RBI) is closely aligned with the G20 Leaders Declaration 2023 regarding CBDCs. e₹-R, as a digital token representing legal tender issued by the RBI, reflects India's hands-on approach to embrace modern digital currency solutions and bring them into line with global trends in CBDC development and implementation.

**9. Artificial Intelligence (AI):** The Ministry of Electronics and IT (Meity) has undertaken various schemes and programs to accelerate the implementation and development of AI in India.

### Conclusion

- The G20 Leaders' Declaration underscores the pivotal role of Digital Public Infrastructure (DPI) in driving inclusive and sustainable development in an increasingly digital world.
- India's success story stands as an inspiration for countries striving to create resilient and inclusive digital futures.

### **BUILDING SAFETY, SECURITY, RESILIENCE, AND TRUST IN THE DIGITAL ECONOMY**

- G20 was formed in 1999 in response to the Asian financial crisis of 1997-98 and to create global financial stability. Since its origin, it has expanded its agenda to include inter alia, the digital economy, trade, sustainable development, health, agriculture, energy, environment, climate change, and anti-corruption.
- The digital economy is one of the most important agenda items for the G20. As per the World Bank, the digital economy contributes to more than 15% of the global Gross Domestic Product (GDP).

### G20 Digital Economy Working Group

- The Digital Economy Working Group had extensive discussions on the three key pillars: **Digital Public Infrastructure, Security in the Digital Economy, and Digital Skilling**.
- Outcome Document outlines the details of the consensus that emerged on the key issues.

### Digital Public Infrastructure (DPI)

- One key achievement of the G20 was to come up with a definition of DPIs. Digital Public Infrastructure is described as a set of **shared digital systems** that:
  - should be **secure and interoperable**,
  - can be built on open standards and specifications to deliver and provide equitable access to public and/or private services at a societal scale, and
  - are governed by applicable legal frameworks and enabling rules to drive development, inclusion, innovation, trust, and competition and respect human rights and fundamental freedoms.
- One of the most important outcomes of the G20 was the agreement reached about the **G20 Framework for Systems of Digital Public Infrastructure** that can lay the roadmap for the development and deployment of DPIs in Low- and Middle-Income Countries (LMICs).
- India's plan to build and maintain a **Global Digital Public Infrastructure Repository (GDIPR)** as a virtual repository of DPI, can be a big enabler for the adoption of DPIS.
- This, accompanied by the proposal of the **One Future Alliance (OFA)**, can help build capacity and provide technical assistance and funding support for implementing DPIs in LMICS.

### Security in Digital Economy

- Deliberations in India's G20 Presidency further emphasized the importance of safety, security, resilience, and trust in the digital economy for digital transformation.
- The **non-binding G20 High-Level Principles** to Support Businesses in Building safety, security, resilience, and trust in the digital economy will be a key enabler.
- Another key aspect of the potential risks associated with the digital economy relates to the impact they have on vulnerable sections of society, in particular children and youth.
- It increases exposure to risks to which children are especially vulnerable, such as cyber bullying and grooming, child sexual abuse and exploitation, as well as risks related to their data and privacy. Women and girls are disproportionately affected by technology-facilitated gender-based violence.
- The **G20 Toolkit on Cyber Education and Cyber Awareness of Children and Youth**, developed under the Indian presidency, will serve as a guide for all countries.

### **RESPONSIBLE USE OF AI BRIDGING INNOVATION AND ETHICS**

- Artificial Intelligence (AI) is transforming the way humans interact, industries function, and societies are structured.
- Current applications include image and text analysis for data analysis purposes, logistics, assistance in decision-making, autonomous vehicles, and aerial systems, cybersecurity, etc.
- Additionally, it is being used for security, surveillance, and inventory management. It is also being applied extensively to areas like agriculture, fintech, healthcare, manufacturing, and climate change, yielding sizeable dividends in all of them.

### G20 New Delhi Leaders' Declaration and Responsible AI

- The recently concluded G20 Summit in New Delhi has tackled multiple aspects related to **Responsible AI (RAI)**.
- The New Delhi Leaders' Declaration highlights the significance of harnessing AI responsibly for good and for all.
- The declaration mentions that the **G20 members will pursue a pro-innovation regulatory/ governance approach** that maximises the benefits and takes into account the risks associated with the use of AI.
- The declaration also reaffirms the leaders' commitment to G20 AI Principles of 2019. These principles had been adopted at the **2019 Osaka Summit** and underline the human-centered approach of AI.
- Besides this, the declaration also underlines the importance of investment in supporting human capital development.

### How Does AI Pose Ethical Risks?

- Several critics of AI have also raised concerns about **gender and racial bias** when it comes to the application of AI to services like healthcare and finance.
- **AI is not neutral**; it can internalize and then catastrophically enhance biases that societies possess, programme them into the code, and/or ignore them in outputs in the absence of sensitivities to those biases, to begin with.
- Besides this, there are also ethical concerns that have arisen over issues like **copyright infringement and privacy violations** due to apps that create realistic images and art from a description in natural language.
  - Several artists have accused apps of training their algorithms based on images and illustrations scraped from the web without the original artists' consent.

- There are concerns regarding the **misuse of AI in the defence domain** to enhance targeting and surveillance capabilities of drones on the battlefield.
- Critics have also noted the misuse of AI for illegal surveillance. In the cybersecurity sphere, generative AI applications are increasingly posing legitimate security threats as they are being used to conduct malware attacks.
  - For Instance, cybercriminals, with the help of AI, mass generating phishing emails to spread malware and collect valuable information.
- An even more insidious threat has emerged through **deepfakes** which generate synthetic or artificial media using ML. Such realistic-looking content is difficult to verify.
  - For instance, a deep fake video of Ukrainian President Volodymyr Zelenskyy asking his troops to surrender went viral.

### What is Responsible AI (RAI)?

- RAI is broadly understood as the practice of designing, developing, and deploying AI to empower employees and businesses and impact society in a fair manner.
- India has been working on RAI since 2018, and NITI Aayog also released a two-part report in 2021 on approaches towards and operationalisation of RAI principles.
- The **seven principles that NITI Aayog highlights are:** safety and reliability; equality; inclusivity and non-discrimination; privacy and security; transparency; accountability; and protection and reinforcement of positive human values.
- Indian tech industry body NASSCOM embedded the principles of this framework into **India's first RAI Hub and Toolkit** released in late 2022.

### India and GAPI

- The focus on RAI in G20 New Delhi Leaders' Declaration also aligns with **India holding the chair of the Global Partnership on Artificial Intelligence (GPAI)**.
- **GAPI** is a multistakeholder initiative that brings together experts from various backgrounds.
- It contributes to the responsible development of AI via its Responsible AI working group.
- India chairing the GPAI is important since the Global South is underrepresented in the forum: out of its 29 members, only four are from the Global South - Argentina, Brazil, India, and Senegal.
  - New Delhi will host the annual GPAI Summit on 12-14 December 2023.

### ENERGY TRANSITION IN INDIA

- With a population of over 1.4 billion and being the fastest-growing major economy, the need for a sustainable and secure energy supply has never been more critical for the country.
- In recent years, India has embarked on a transformative journey, shifting its focus from conventional fossil fuel-led growth towards sustainable growth through renewable sources of electricity generation.

### The Need for Energy Transition

- For decades, the energy sector has relied primarily on fossil fuels. However, this reliance has come at a significant cost, **both environmentally and socially**. The burning of fossil fuels releases greenhouse gases contributing to global warming and climate change.
- The air pollution resulting from conventional energy sources has led to severe health implications. As a signatory to the Paris Agreement, India has committed to reducing its carbon emissions.

## Steps Taken By India

### • Policies and Schemes

- The **National Action Plan on Climate Change (NAPCC)**, introduced in 2008, laid the groundwork for the country's sustainable development goals.
- The launch of the **National Solar Mission** has been a watershed moment in the renewable energy story of the country.
  - Launched in 2010, this mission aimed to promote the deployment of solar energy technologies and reduce the cost of solar power generation.
  - The initial target of 20 GW by the year 2022 was increased fivefold to 100 GW.

### • Increased share of Renewable energy

- The total target for renewable energy also revised to 175 GW. **The target has recently been revised to 500 GW of installed electricity generation capacity** through non-fossil fuels by the year 2030.
- Against the target of 175 GW, a total of 172 GW of renewable capacity has been installed by the end of FY 2023.
- The share of renewable energy in the generation mix increased to 22.5% in FY 2023.
- Today, **India has the 4th highest installed RE capacity globally**.
- India also ranks 4th in terms of global wind and bioenergy installed capacity, while it ranks 5th in solar installed capacity, closely following Germany.

### • Renewable Purchase Obligation (RPO) and Energy Storage Obligation (ESO)

- To increase renewable energy consumption, the Renewable Purchase Obligation (RPO) and Energy Storage Obligation (ESO) trajectory till FY 2030 have been issued by the Government.
- **Green Open Access and Green Power Markets** have also been introduced to help in the evacuation of power generated through renewable energy sources.

### • Evacuation of green energy corridor

- To ensure the evacuation of generated green power, the **Green Energy Corridor (GEC)** scheme was launched.
- The Government also extended the benefit of **Inter State Transmission System (ISTS) charges waiver** till June 2025 for all renewable energy projects.
  - For Green Hydrogen Projects waiver has been extended till December 2030; and for offshore wind projects, it has been extended till December 2032.

### • Other schemes

- **Solar Parks Scheme** with a target of 40 GW;
- **Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyaan (PM-KUSUM)** Scheme with a target of 30.8 GW;
- **Rooftop Solar (RTS) Phase-2** Scheme with a target of 4 GW.
- The Government has also launched the **National Green Hydrogen Mission (NGHM)** in January 2023 with a target of 5 MMTPA production capacity by 2030.
  - Till date, 49 green hydrogen production and 19 electrolyser manufacturing projects have been announced so far.
- One of the major initiatives in renewable energy manufacturing sector is the launch of **Production Linked Incentive (PLI) scheme**.
- To improve skilling in the sector, over 32,000 persons have been trained under **Suryamitra programme**.

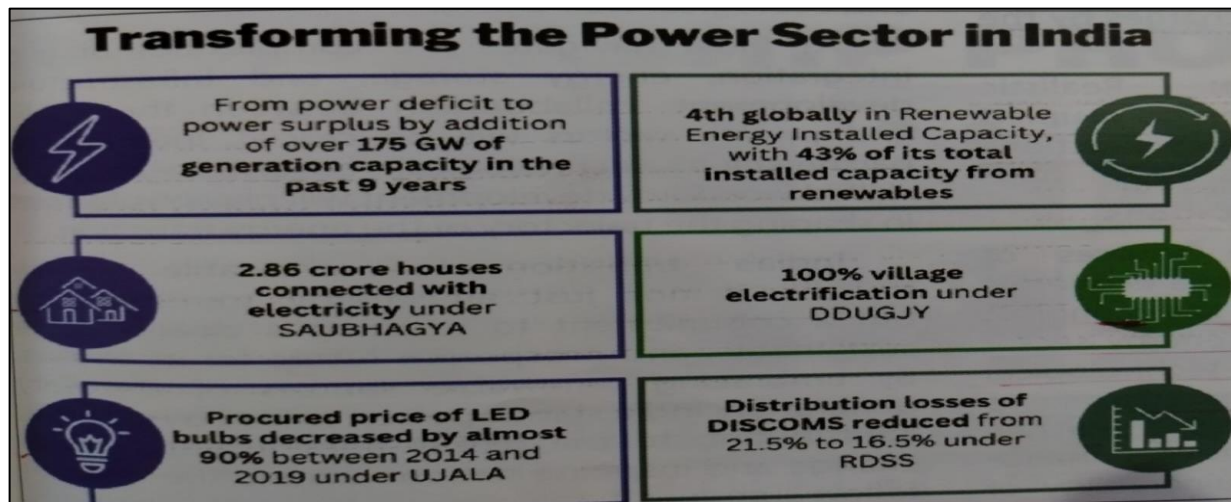
- **Vayumitra** for wind power projects and **Jal-Urjamitra** for small hydro plants have also been launched and training programmes are underway.

### Challenges and The Path Ahead

- One of the primary concerns is the intermittent nature of renewable energy sources like solar and wind. Balancing electricity supply and demand becomes complex due to fluctuations in generation.
- The integration of renewable energy into the existing grid infrastructure requires significant investments and upgrades.
- Other challenges
  - **Land:** The availability of land for RE projects has been one of the major challenges.
  - **Regulatory Issues:** To achieve the RE installation targets, earnest action is needed from the State Governments on the following aspects:
    - Compliance of Renewable Purchase Obligation (RPO); Timely adoption of tariff by State Electricity Regulatory Commissions (SERCS); Avoiding levy of additional charges by the States
  - **Transmission infrastructure:** Realistic transmission and RE project planning coupled with regular monitoring and remedial actions are needed to achieve the targets.

### Economic and Environmental Benefits

- On the economic front, the growth of the renewable energy sector would stimulate job creation, spur technological innovation, and attract foreign investment, as also described in the previous sections.
- Further, a decrease in fossil fuel imports would **enhance energy security** and reduce the vulnerability of the economy to global energy market fluctuations.
- Environmentally, the shift away from fossil fuels significantly reduces carbon emissions, mitigates pollution, and air safeguards public health.



### Conclusion

During COP26 in Glasgow, the Prime Minister, of India, announced five nectar elements, the Panchamrit, to deal with this challenge of climate change. These elements of Panchamrit will help the country to make its contribution in dealing with the climate change emergency.