GOVERNMENT OF INDIA
MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY
LOK SABHA
STARRED QUESTION NO. *305
TO BE ANSWERED ON: 22.03.2023

OPPORTUNITY IN TECHNOLOGY SECTOR

***305†. SHRIMATI RITI PATHAK:**
SHRI PARBATBHAI SAVABHAI PATEL:

Will the Minister of Electronics and Information Technology be pleased to state:

(a) the manner in which India can play an important role in shaping the future of technology globally; and

(b) the manner in which the Government proposes to promote the opportunities in technology sector for the youth in the country, State/UT-wise particularly in Madhya Pradesh, Gujarat, Jharkhand, Bihar and Jammu Kashmir through coordination with States and local Governments?

ANSWER

MINISTER OF ELECTRONICS AND INFORMATION TECHNOLGY
(SHRI ASHWINI VAISHNAW)

(a) and (b): A Statement is laid on the Table of the House.

STATEMENT REFERRED TO IN THE REPLY TO LOK SABHA STARRED QUESTION NO. *305 FOR 22.3.2023 REGARDING OPPORTUNITY IN TECHNOLOGY SECTOR

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(a): In 2015, the Hon'ble Prime Minister launched the Digital India Program with three clear objectives –

a) Empowering & Transforming Citizens lives, Governance & Democracy
b) Expanding Economy Opportunities - creating new Jobs & Entrepreneurship
c) Making India a global leader in Technology

In the last 8 years, since the launch of this program, India has become a pre-eminent nation in the use of technology to transform citizens lives becoming producer of technology from consumer of technology. The Government under the leadership of Hon'ble PM envisioned an India Stack which has been successful in improving governance and deepening democracy. India is now world's largest connected Democracy with over 80 crore Indians accessing the internet and a global leader in digital payment systems.

Digital India also helped India give a resilient response to the Covid Pandemic, as over 200 crore vaccinations shots were delivered using the Cowin platform. The identity layer of Aadhaar led to one of the world's largest identity linked social benefits transfer program that could deliver benefits directly into the accounts of beneficiaries residing even in remote corners of the country.

In terms of expanding economic opportunities, what was once a single dimensional digital economy has become a broad-based, high growth digital economy with components that are all growing rapidly and catalysing innovation ecosystem.

In July 2021, the Hon'ble Prime Minister referred to the coming decade to be India's Techade, wherein the data and demographic dividend combined with India's proven tech prowess will play a massive role in the growth and development of the country, creating new opportunities of jobs and entrepreneurship for Young Indians. This Techade will be designed, architected & built by Young Indians.

India can continue to shape the future of technology globally by focusing on the following key areas:

Entrepreneurship and Innovation: India has a large pool of skilled engineers and innovators who have made significant contributions to the global tech industry. India has the 3rd largest startup ecosystem in the world, having 108 unicorns and is expected to witness annual growth of 12-15%.

Research and Development: Emerging technologies like Artificial Intelligence, Internet of Things, Advanced Data Analytics, 5G Advanced/6G, Cloud technologies, Quantum technologies, Augmented and Virtual Reality, Additive Manufacturing, Robotics and Block chain etc. will redefine the future of technology led transformation. Several Centres of Excellence have been setup to promote innovation in these areas. The Government has launched initiatives such as the National Program on Artificial Intelligence and the National Mission on Quantum Technologies and Applications. Efforts are also on to enable Indian IT professionals attain world class skills in these technologies through a Future Skills Programme.

Digital Infrastructure: Digital India Programme is leading the transformation in India for ease of living and digital economy. India has the world's largest Digital Identity Programme with 136 crore Aadhaar, which has helped poor to receive benefits directly in their accounts. MeitY has identified Public Digital Platforms as the main catalysts in the overall growth and transformational change in the economy. Digital platforms like Aadhaar, UPI, GeM,

DigiLocker, DIKSHA, Co-Win, etc., have demonstrated the transformational potential of nationwide digital platforms. The Ayushman Bharat Digital Health Mission has been launched as a nationwide digital platform in healthcare.

The year 2022-23 witnessed the launch of several new transformational initiatives such as My Scheme (as eligibility-based service discovery platform), Meri Pehchaan (as National Single Sign-On Platform), India Stack Global (as a repository of India Stack solutions), GENESIS (Gen-Next Support for Innovative Startups Programme), among others.

Artificial Intelligence (AI): AI is a kinetic enabler for taking forward current investments in technology and innovation. In 2020, India had joined the Global Partnership on Artificial Intelligence (GPAI), an international initiative to support responsible and human-centric development and use of Artificial Intelligence (AI). It works in collaboration with partners and international organisations, leading experts from industry, civil society, governments, and academia to collaborate to promote responsible evolution of AI and guide the responsible development and use of AI, grounded in human rights, inclusion, diversity, innovation, and economic growth. It is a first-of-its-type initiative for evolving better understanding of challenges and opportunities around AI. This year, India is the Chair of the GPAI.

Technology in Semiconductors, Electronics and IT Hardware: The Government of India has implemented a range of proactive and pre-emptive initiatives to promote basic and applied research in deep tech to accelerate the growth of the deep tech innovation ecosystem in the country. Schemes for Mobile Phones, IT Hardware and Electronic components have been successful in encouraging global participation in India's manufacturing sector while providing a fillip to domestic companies that have the potential to compete globally and contribute to India's economic development. India Semiconductor Mission(ISM) has been launched to enable India’s emergence as a global hub for electronics manufacturing and design.

(b): The Government has initiated various measures to promote opportunities in the technology sector for the youth throughout India, such as:

- **Launch of Responsible AI for Youth:** Government has launched Responsible AI for Youth 2022, on July 30, 2022.The Programme was designed to reach out to students from Government schools on pan India basis and provide them with an opportunity to become part of the skilled workforce in an inclusive manner. The programme impacted 52,628 students across 35States and UTs, empowering youth with necessary AI skill sets, who had limited or no access to the latest technologies and resources.
- **YUVAi- Youth for Unnati and Vikas with AI**: National e-Governance Division (NeGD), MeitY in collaboration with its partners, has launched ‘YUVAi: Youth for Unnati and Vikas with AI’- A National Programme for School Students with the objective of enabling school students from classes $8^{th}$to $12^{th}$with AI tech and social skills in an inclusive manner. The programme will provide a platform for youth to learn and apply AI skills in 8 thematic areas- Krishi, Aarogya, Shiksha, Paryavaran, Parivahan, Grameen Vikas, Smart Cities and Vidhi aur Nyaay.
- **Future Skills PRIME:** Future Skills PRIME is a Programme for Re-Skilling/Up-Skilling of IT Manpower for employability. C-DAC being Programme Management Unit, aims to re-skill/up-skill 4.12 lakh IT Professionals in ten(10) emerging technologies including Additive Manufacturing, Block chain, Cyber Security, Internet of Things, Artificial Intelligence, Robotics Process Automation, Social & Mobile, Big Data Analytics, Cloud Computing and Augmented Reality/Virtual Reality.12,73,815 candidates have signed-up on the portal, 5,24,777 candidates have enrolled in various courses, out of which 1,85,791 candidates have completed their course(s).
- **INSPIRE:**“Innovation in Science Pursuit for Inspired Research (INSPIRE)” is a flagship scheme of the Department of Science and Technology (DST) which aims to attract meritorious youth to study basic and natural sciences at the college and university level and to pursue research careers in both basic and applied science areas

including engineering, medicine, agriculture and veterinary sciences. The ultimate aim is to expand the R&D base of the country.

- **Atal Innovation Mission:** NITI Aayog has initiated an AIM-State partnership for helping in strengthening the existing innovation ecosystem in the states/UTs. AIM is proposing joint efforts with states to create a strategy for infrastructure, processes, human resources, and policies in building a holistic innovation and entrepreneurship ecosystem in the state, and proposes to do so through the transfer of know-how, expertise, mentorship, and interconnections.
- **India BPO Scheme:** India BPO Promotion Scheme (IBPS) was initiated in 2016 under IT for Jobs pillar of Digital India Programme. The scheme aims to incentivize setting-up of BPO/ITeS operations across the country, particularly in small towns/cities, to create employment opportunities and promote the dispersal of the industry for balanced regional growth. The BPO/ITeS units starting in Tier-II/III locations are providing job opportunities to the youth near their home which would reduce the migration to metros and lower the attrition rate. The BPOs in small towns and cities are providing services in local languages, which would create employment opportunities for the local youth and services provided in local languages that results in better customer satisfaction.

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