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WORLD DEVELOPMENT REPORT [2024]—ANALYSIS

A BRIEF GUIDE TO GREENHOUSE GASES

FOREIGN DIRECT INVESTMENT IN INDIA—SUMMARY

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Pages & Perspectives

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New Delhi, India

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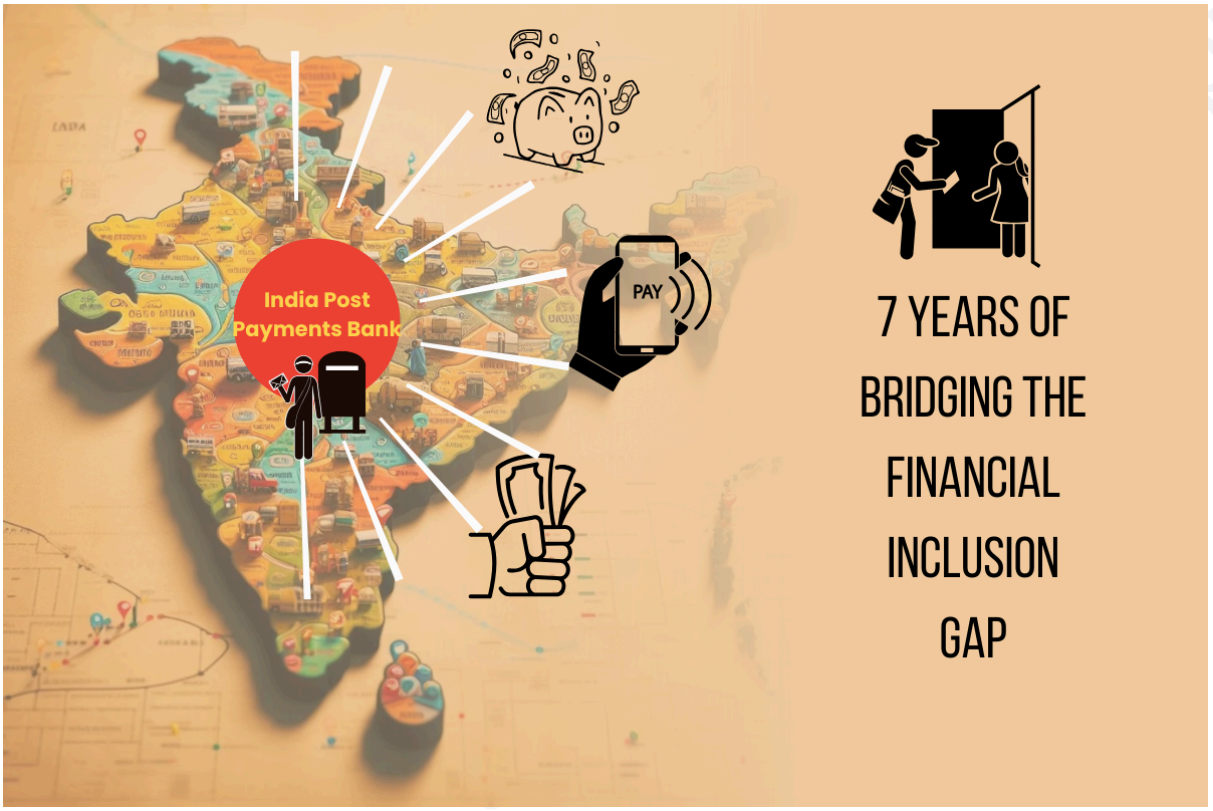
India Post Payments Bank: Reinforcing the Commitment to Financial Inclusion



India Post Payments Bank (IPPB), a key player in driving financial inclusion across the country, proudly marked its 7th Foundation Day (IPPB Day) on 1st September 2024. The IPPB has made significant strides in bridging the financial inclusion gap, leveraging India Post's extensive network of over 161,000 post offices and 1,90,000 postal employees during the last seven years. The IPPB's innovative approach has not only ensured that millions of people across the country have access to essential banking services, but has also brought hope and inspiration to rural and remote areas, thereby contributing to the nation's socio-economic development by empowering every household with Doorstep Digital Banking Services.

About India Post Payment Bank:

The Department of Posts, Ministry of Communication, established the India Post Payments Bank (IPPB). It has 100% equity owned by the government of India. It was launched on September 01, 2018. The bank has been set up with the vision of building the most accessible, affordable, and trusted bank for the ordinary person in India. The fundamental mandate of India Post Payments Bank is to remove barriers for the unbanked and underbanked and reach the last mile by leveraging the postal network comprising 1,61,000+ post offices (1,43,000 in rural areas) and 190,000+ postal employees.

The IPPB's reach and operating model are built on the key pillars of India Stack—enabling paperless, cashless, and presence-less banking in a simple and secure manner at the customers' doorstep through a CBS-integrated smartphone and biometric device. Leveraging frugal innovation and focusing on ease of banking for the masses, it delivers uncomplicated and affordable banking solutions through intuitive interfaces in 13 languages.

It is committed to provide a fillip to a less cash economy and contribute to the vision of digital India. This commitment reassures their audience that India will prosper when every citizen will have equal opportunity to become financially secure and empowered. Its motto stands true - Every customer is important, every transaction is significant and every deposit is valuable.

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2

Measures Taken by Government of India for the LGBTQI+ Community

The Department of Social Justice and Empowerment (DoSJE) has invited input from stakeholders and the public at large to ensure that policies and initiatives regarding the LGBTQI+ community are inclusive and effective. The Government of India has taken a host of measures regarding the community.

The Supreme Court, in its judgment dated 17.10.2023 in the Writ Petition No. 1011/2022 - Supriyo@Supriya vs. Union, recorded that the Union Government will constitute a committee chaired by Cabinet Secretary to define and elucidate the scope of entitlements of the queer community.

Government of India, through a gazette notification dated 16.4.2024, constituted a Committee with Cabinet Secretary as the Chairperson and Secretaries of Ministry of Home Affairs, Ministry of Women and Child Development, Ministry of Health and Family Welfare, Legislative Department as Members and Secretary, Department of Social Justice and Empowerment as Member Convenor to examine and submit recommendations on the measures to be taken by Central and State Governments to safeguard the interest of the queer community.

Accordingly, the Government of India has already taken the following interim action:

i. Department of Food and Public Distribution (D/oF&PD) has issued an advisory to all the States and UTs, that, as per existing provisions, enabling partners in a queer relationship are to be treated as a part of the same household for the purposes of ration card. Further, States/UTs have been asked to take necessary measures to ensure that

partners in queer relationships are not subject to any discrimination in the issuance of ration cards.

ii. The Department of Financial Services (DFS) has issued an advisory that there are no restrictions for persons of the queer community to open a joint bank account and also to nominate a person in queer relationship as a nominee to receive the balance in the account, in the event of death of the account holder.

iii. The Ministry of Health and Family Welfare has issued letters to all stakeholders, including all States/UTs, to take measures to ensure the rights of the LGBTQI+ community regarding healthcare, planning awareness activities, prohibition of conversion therapy, availability of sex reassignment surgery, changes in curricula, provision of Tele consultation, sensitization and training various levels of staff and making of provision to claim the body when near relative/next of kin/family is not available.

iv. The Directorate General of Health Services, Ministry of Health and Family Welfare, has also issued letters to the State Health Departments and other stakeholders on the subject of ensuring healthcare access and reducing discrimination against the LGBTQI+ community.

v. The Ministry of Health and Family Welfare has framed guidelines in respect of medical intervention required in infants/ children with disorders of sexual differentiation (intersex) to have a medically everyday life without complications. The Ministry is working on guidelines to address the issues about mental health/well-being of the queer community.

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3
National Conference on Functioning of Land Customs Stations (LCSs)

The Central Board of Indirect Taxes and Customs (CBIC) hosted the 4th National Conference on the Functioning of Land Customs Stations (LCSs) on 28th and 29th August 2024 in New Delhi. The two-day conference provided a platform for key stakeholders to discuss the current challenges and future strategies for enhancing the operations of India's Land Customs Stations and Integrated Check Posts, along with the movement of passengers with India's neighboring countries. The conference brought together more than 100 experts and key stakeholders to discuss and present specific recommendations on:

- Trade and transit facilitation at LCSs with neighboring countries
- Risk management strategies to combat smuggling
- Best practices in anti-smuggling operations
- Technological advancements to strengthen border security
- Collaboration and information sharing among agencies
- Capacity building and training for effective border management
- Policy reforms required for Coordinated Cross Border Management and Interoperability among agencies

The first day of the conference was focused on inter-ministerial discussions. In addition to officers from CBIC formations, representatives from Ministry of External Affairs, Ministry of Home Affairs, Land Ports Authority of India, Ministry of Commerce & Industry, Inland Waterways Authority of India, Ministry of Railway, Ministry of Textiles, Ministry of Road Transport and Highways, Ministry of Agriculture and Farmers Welfare, Ministry of Fisheries, Animal Husbandry & Dairying, Food Safety & Standards Authority of India, Ministry of Development of North Eastern Region and several state

governments also actively participated. The event also saw the participation of international organizations, trade bodies, and think tanks such as the Asian Development Bank, World Bank, Indian Council for Research on International Economic Relations, United Nations Economic and Social Commission for Asia and the Pacific, and the Federation of Indian Chambers of Commerce & Industry. The discussions centered around optimizing the operational efficiency of Land Customs Stations and enhancing trade facilitation at international borders with the neighboring countries, with a special focus on Bhutan, Bangladesh, and Nepal. The inter-ministerial dialogue emphasized the importance of coordinated efforts among different ministries and organizations to ensure a seamless trade environment. International Organisations, Think Tanks, and Trade Associations are updated on infrastructure and knowledge projects undertaken in the South Asia Region. On the second day, discussions covered Infrastructure development and logistics issues, Manpower and Human Resources issues, Anti-smuggling and risk management, Digitization and Process Improvement, as well as Gender mainstreaming at Land Customs Stations. A key theme was the need for stronger inter-departmental coordination and the adoption of advanced technologies. Participants also highlighted the importance of improving infrastructure and streamlining procedures to facilitate smoother and more efficient trade flows through India's land borders.

Land Customs Stations in India

There are 122 Land Customs Stations (LCSs) notified under the Customs Act, 1962, which are strategically located along India's borders for trade with seven neighboring countries, *i.e.*, Afghanistan, Bangladesh, Bhutan, China, Myanmar, Nepal, and Pakistan, spread across 16 states of India. These LCSs facilitate the smooth movement of goods and people across international borders. Integrated Check Posts (ICPs) have been

established at 12 key locations - Attari Road, Agartala, Petrapole, Jogbani, Raxaul, Moreh, Dera Baba Nanak, Suterkandi, Srimantapur, Dawki, Rupaidhia, and Sabroom, offering modern infrastructure and streamlined processes for efficient customs clearance. Additionally, 7 Border Haats have been set up at specific locations along the India-Bangladesh border to promote local trade by allowing local vendors to sell goods in designated areas, contributing to the economic upliftment of border communities.CBIC has actively engaged in bilateral and multilateral dialogues with partner countries to harmonize customs procedures and create a conducive environment for trade facilitation.

Systemic reforms like the National Single Window System (SWIFT), advanced risk management system, Post Clearance Audit, Authorized Economic Operator (AEO) program, movement of cargo under Electronic Cargo Tracking System (ECTS), decongestion of land borders through promoting off-border clearances, among others have promoted ease of doing business at the Land Customs Stations. As per the National Time Release Study (NTRS) 2024 published by CBIC, there has been a 50 percent reduction in average release time in the case of Integrated Check Posts in 2024 compared to the corresponding period in 2023.

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"The journey of a thousand miles begins with a single step."

Lao Tzu

4
Reforms Required for Augmentation of Organ and Tissue Donation and Transplantation in Terms of Technology, Processes and Legislation in India

The two-day Chintan Shivir will cover ten important themes concerning organ donation and transplantation and various sub-themes.
The specific objectives for the Chintan Shivir are of utmost importance and are as follows:

- To discuss the reforms required for augmenting organ and tissue donation & transplantation.
- To explore and discuss technological advancements that can improve organ donation and allocation processes.
- To propose legislative reform recommendations to strengthen the existing legal framework related to organ donation and transplantation.
- To provide an enabling environment for organ donation and allocation by ameliorating existing technologies involved in the process.

The sessions will focus on themes such as plugging legal loopholes, One Nation, One Policy, ensuring transparency, improving the ecosystem, making organ transplants affordable, accessible, and equitable, and preparing a roadmap for the same. This collective effort will involve representatives from States, NGOs, organ transplant societies, eminent transplant professionals, and experts from various government and private institutions, ensuring that all stakeholders are included in the Chintan Shivir.

Background:

The Government of India is implementing the National Organ Transplant Program, a significant initiative that aims to promote organ

donation from deceased persons. This program is crucial as it increases the availability of organs for transplantation, thereby saving lives. Under this program, an apex-level organization, "National Organ and Tissue Transplant Organization" (NOTTO), has been established at Safdarjung Hospital, New Delhi, and a nationwide network of transplant and retrieval hospitals and tissue banks has been created. The registration of patients waiting for organs, transplant cases, organ donors, etc. is being done at the national level. The registration process has been made more accessible through NOTTO's web portal www.notto.abdm.gov.in for people who want to donate organs after death. The web portal was launched on 17th September 2023.

Additionally, five Regional Organ and Tissue Transplant Organizations (ROTTOs) have been established at Mumbai, Kolkata, Chandigarh, Chennai and Guwahati to reach out to Western, Eastern, Northern, Southern and North-Eastern regions of the country respectively. It is planned to establish a State Organ and Tissue Transplant Organization (SOTTO) in every state, and so far, 21 State Organ and Tissue Transplant Organizations (SOTTOs) have been established. Patients suffering from organ failure can register themselves to receive an organ from a deceased organ donor at the hospitals where they are undergoing treatment. A dedicated website,www.notto.mohfw.gov.in, provides information on organ donation and transplantation and facilitates online registration of hospitals for networking and creating a national registry. Facility to take online and offline organ and tissue donation oaths is available. A helpline is operational round the clock on the toll-free number 1800114770.

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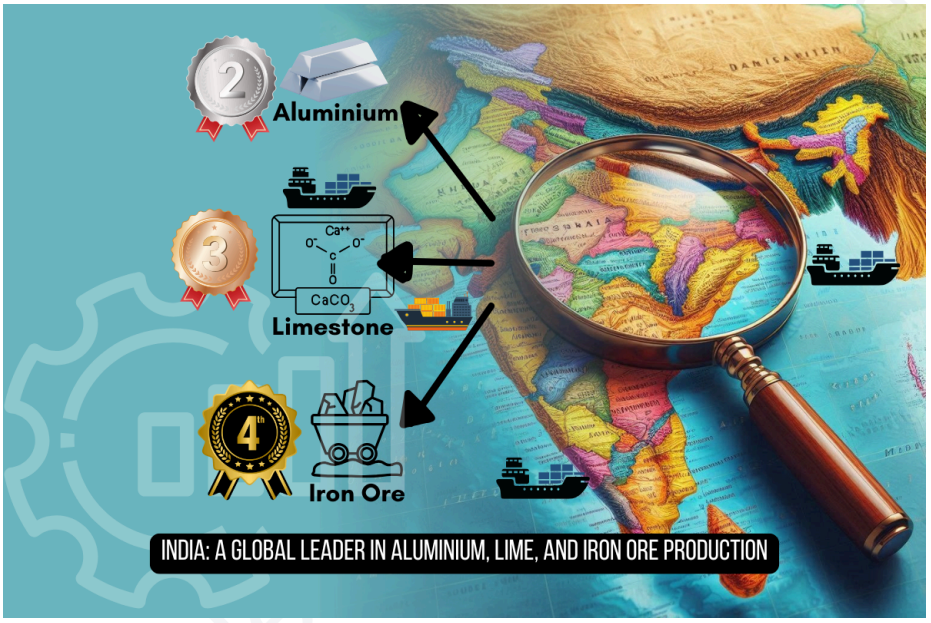
Mineral and Metal Sector Production on Track Post Robust Growth in Q1 of FY 2024-25

The country's production of critical minerals, such as iron ore and limestone, has continued on a growth path after registering growth in Q1 of FY 2024-25. Iron ore and limestone account for about 80% of the total MCDR mineral production by value. Iron ore production was 79 million metric tonnes (MMT) in FY 2024-25 (April-June), and limestone production was 116 MMT for the same period, after reaching record production levels in FY 2023-24.



India is the second-largest aluminium producer, third-largest lime producer, and fourth-largest iron ore producer globally.

Continued growth in iron ore and limestone production in the current financial year reflects the robust demand conditions in the user industries, viz., steel and cement. Coupled with Aluminum growth, these trends point towards continued economic solid activity in user sectors such as energy, infrastructure, construction, automotive, and machinery.

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6
Solar Energy Corporation of India Ltd (SECI)

Solar Energy Corporation of India Ltd (SECI), a Central Public Sector Enterprise (CPSE) under the Ministry of New and Renewable Energy, was granted the Navratna status on 30 August 2024 by the Ministry of Finance.

Completing its 13th year of incorporation, SECI is a leading CPSE dedicated to developing and expanding Renewable Energy (RE) capacity in India. With a cumulative generation awarded capacity of 69.25 GW and an annual power trading volume upwards of 42 Billion Units, SECI is the foremost Renewable Energy Implementing Agency (REIA) of India, continuously working towards fulfilling climate goals and striving for sustainable development.

SECI's classification as a Navratna CPSE is a significant development. It grants the company enhanced autonomy in financial and operational matters, paving the way for accelerated growth. This status also underscores the government's commitment to India's transition towards sustainable energy, a path that SECI is now better equipped to navigate with improved agility, geographical presence, and technology focus.

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7
Novel Nano Polymers

Novel electrochemical and optical sensors developed with the help of a new group of nano polymer materials called Metal-organic frameworks (MOF) and two-dimensional (2D) materials can be used for rapid and convenient detection of health, food quality, and environmental parameters. They can pave the way for low-cost point-of-care devices to quickly detect and screen diseases such as anemia, cancer, etc.

Recent decades have witnessed advancements in several categories of nanomaterials for sensing applications. MOFs and 2D materials possess several unique features that should make them better alternatives to other nanomaterials as sensors. Both MOFs and 2D classes of materials are known for their large surface area, functionality, and optoelectronic properties. They also have a wide range of synthesis methods and can be developed into disposable electrodes, optical kits, fiber optic sensors, colorimetric strips, etc.

These excellent material features have been exploited to develop electrochemical and optical sensors for different analytes, such as bacteria, Aflatoxins, and heavy metals.

Researchers of the Institute of Nano Science and Technology (INST), Mohali, an autonomous institute of the Department of Science and Technology, have developed a bunch of electrochemical and optical biosensors based on nano polymers multifunctional Metal-organic framework (MOF) and 2-dimensional (2D) materials. MOFs are

multifunctional coordination polymers, while MoS2 nanosheets and MXenes are some 2D materials that have emerged as materials of choice for sensors.

The researchers have utilized MOFs, 2D nanomaterials (e.g., MoS2, MXenes), and their composites. While these materials offer large surface areas, functionality, and desired transduction modes, their integration with biorecognition molecules was also robust and resulted in reliable sensor performance. The results were published in the Elsevier Journals Food Control and Microchemical.

The application of MOFs, 2D materials, and their composites allows greater sensitivity than many existing methods for the electrochemical and optical sensing of analytes. These materials offer multimode detection capabilities, and hence, some of the developed sensors have been demonstrated for simultaneous naked-eye-based and fluorescence-based detections. The bioconjugation of biorecognition elements over the MOF and 2D materials-based interfaces was also characterized by a greater density to facilitate nano- to pico-molar level sensitivities.

Besides detecting diseases, the devices are also useful for analyzing food toxins such as Aflatoxins and Zearaloene in water, milk, and staple food samples. Some of these sensors can be deployed as gas and heavy metal detection tools to monitor environmental quality.

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8
WAVES | Create in India Challenge Season 1

The Government of India is gearing up to host the inaugural World Audio Visual & Entertainment Summit (WAVES) to bolster India's Media & Entertainment industry and extend its global influence. With the Union Minister of Information and Broadcasting, Shri Ashwini Vaishnaw, launching 25 Challenges under the 'Create in India Challenge - Season 1' on August 22, 2024, WAVES is poised to become a significant platform for icons of the M&E fraternity worldwide, focusing on entertainment economics and technology.

Overview

- This challenge aims to showcase Indian talent and interest in Manga, Webtoon, and Anime through a series of state and national-level competitions. It will offer substantial marketing support and the potential for publishing and distribution deals.
- It is organized in association with the Media and Entertainment Association of India.

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9
CBDT Rolls Out Dispute Resolution Scheme (e-DRS)

In pursuance of section 245 MA in the Income-tax Act, 1961 (from now on referred to as "the Act"), the Central Board of Direct Taxes (CBDT) notified the e-Dispute Resolution Scheme, 2022 (e-DRS) intending to reduce litigation and provide relief to eligible taxpayers. Section 245MA of the Act also provides for the constitution of Dispute Resolution Committees (DRC).

The e-DRS enables the taxpayer, who fulfills certain specified conditions as stipulated in section 245 MA of the Act, to apply electronically for dispute resolution to the DRC designated for the region of Principal Chief Commissioner of Income-tax having jurisdiction over the taxpayer. To this end, DRCs have been constituted in all 18 jurisdictional Pr. CCIT regions across the country. The list of such DRCs, along with their email addresses, is available on: *https://www.incometax.gov.in/iec/foportal/help/all-topics/statutory-forms/file-statutory-form/popular-form/form-34-BC*.

As per e-DRS, a taxpayer can opt for e-Dispute Resolution against the 'specified order' as defined in clause (b) of the Explanation to section 245 MA of the Act, which includes an order in which the aggregate sum of variations proposed or made does not exceed Rs.10 lakh and returned income for the relevant assessment year does not exceed Rs. 50 lakh. Further, such order should not be based on search/surveys or information received under an agreement referred to under section 90 or 90A of the Act.

According to e-DRS, a DRC may modify the variations in the specified order and decide to grant reduction/waiver of penalty and prosecution per the provision of rule 44 DAC of the Income-tax Rules, 1962

(hereinafter referred to as "the Rules"). The DRC is mandated to pass its order within six months from the end of the month, at which time it admits an application for dispute resolution.

The application for e-DRS is to be filed in Form No. 34 BC, referred to in rule 44 DAB of the Rules, on the e-filing portal of the Income Tax Department within one month from receipt of the specified order. In cases where an appeal has already been filed and is pending before the Commissioner of Income-tax (Appeals), the application for e-DRS is to be filed on or before 30.09.2024. In cases where the specified order has been passed on or before 31.08.2024 and the time for filing an appeal against such order before CIT (Appeals) has not lapsed, the application for dispute resolution can be filed on or before 30.09.2024.

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10
Cabinet Greenlights 12 New Industrial Cities Under NICDP

Introduction

The National Industrial Corridor Development Programme, India's most ambitious infrastructure initiative, is set to redefine the landscape of urban and industrial development. This monumental program is not just about creating new industrial cities as 'Smart Cities' but about ushering in a new era where next-generation technologies seamlessly integrate across various infrastructure sectors. By nurturing the growth of these futuristic industrial hubs, the Government of India is not just positioning the country as a global leader in manufacturing and investment, but is also setting a benchmark for the world to follow.

Central to this strategy is the development of integrated industrial corridors designed to accelerate growth in the manufacturing sector and promote systematic urbanization. These corridors, supported by robust multi-modal connectivity and developed in collaboration with State Governments, are set to drive employment opportunities, economic growth, and overall socio-economic development across the nation.

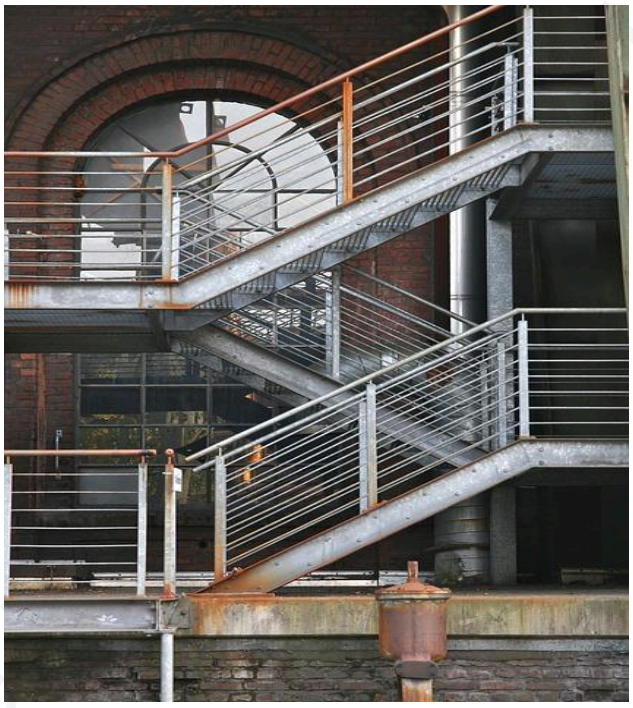
Background

The National Industrial Corridor Development Programme began with the Delhi-Mumbai Industrial Corridor (DMIC) launch.

The Delhi Mumbai Industrial Corridor Development Corporation (DMICDC) Limited was established on 7th January 2008 as a Special Purpose Vehicle (SPV) under the administrative control of the Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce & Industry. Its primary mission was to oversee project development activities and coordinate the implementation of various initiatives under the DMIC.

In December 2016, the scope of the DMIC Trust was broadened, leading to its reconstitution as the National Industrial Corridor Development and Implementation Trust (NICDIT). As a result, in February 2020, DMICDC Ltd. was renamed the National Industrial Corridor Development Corporation (NICDC) Limited. This change marked a significant milestone in India's flagship' National Industrial Corridor Programme,' with NICDC entrusted to spearhead the development of multiple industrial corridor projects across the country.

NICDC's mandate includes project development activities for many initiatives, including investment regions, industrial areas, economic zones, industrial nodes, townships, integrated manufacturing clusters, and standalone or early-stage projects. It also provides vital support to various State Governments in these endeavors.



NICDC's role is not just about project development, but about comprehensive project development. This means preparing master plans, feasibility reports, and detailed project reports, and acting as a critical intermediary in developing and establishing infrastructure projects. This thorough approach ensures that every aspect of the National Industrial Corridor Development Programme is meticulously planned and executed, leaving no room for error.

National Industrial Corridors

Eleven corridors form the National Infrastructure Pipeline.

Key Highlights of the Programme

1. Strategic Investments: The National Industrial Corridor Development Programme (NICDP) aims to cultivate a dynamic industrial ecosystem by attracting investments from large anchor industries and Micro, Small, and Medium Enterprises (MSMEs). These industrial nodes will be catalysts for achieving the ambitious target of $2 trillion in exports by 2030, aligning with the government's vision of a self-reliant and globally competitive India.
2. Smart Cities and Modern Infrastructure: NICDP will see the development of new industrial cities as greenfield smart cities of global standards. These cities will be built 'ahead of demand,' incorporating the 'plug-n-play' and 'walk-to-work' concepts. This approach ensures advanced infrastructure that supports sustainable and efficient industrial operations, reassuring

stakeholders of the program's commitment to modernization. Area Approach on PM GatiShakti: Aligned with the PM GatiShakti National Master Plan, these projects will integrate multi-modal connectivity infrastructure, ensuring seamless movement of people, goods, and services. The industrial cities will serve as growth centers, transforming entire regions into vibrant economic hubs.

3. Vision for a 'Viksit Bharat': The NICDP's approval advances the vision of a 'Viksit Bharat' - a developed India. By positioning India as a key player in Global Value Chains (GVC), NICDP will offer developed land parcels ready for immediate allotment, facilitating domestic and international investors' establishment of manufacturing units. This initiative aligns with the broader objective of creating an '*Atmanirbhar Bharat*' or self-reliant India, driving economic growth through enhanced industrial output and employment.
4. Economic Impact and Employment Generation: NICDP is expected to create substantial employment opportunities, with an estimated 1 million direct jobs and up to 3 million indirect jobs. This will provide livelihoods and contribute to the socio-economic upliftment of regions where these projects are implemented.
5. Commitment to Sustainable Development: The NICDP projects strongly emphasize sustainability. They incorporate ICT-enabled utilities and green technologies to minimize environmental impact. This commitment to sustainable development reassures stakeholders that the aim is to create industrial cities that are not just economic powerhouses but also models of environmental stewardship.

Developed Greenfield Industrial Smart Cities

Dholera Special Investment Region, Gujarat

Dholera Special Investment Region (DSIR) is a greenfield industrial smart city located 100 km southwest of Ahmedabad, designed to be India's leading hub for manufacturing and industrial development. As the country's first platinum-rated industrial smart city, it features Southeast Asia's most significant land parcels and targets key sectors like Defence, Aviation, High-Tech, and Pharmaceuticals. Established in 2016, Dholera Industrial City Development Ltd. (DICDL) is a Special Purpose Vehicle (SPV) formed as a joint venture, with the Government of Gujarat holding a 51% stake through DSIRDA and the Government of India holding a 49% stake through the NICDC Trust. The SPV focuses on sustainable, non-polluting industries to drive regional and national growth.

Aurangabad Industrial Township Limited, Maharashtra

Aurangabad Industrial City (AURIC) is a meticulously planned greenfield smart industrial city covering 10,000 acres in Maharashtra, developed as part of the Delhi-Mumbai Industrial Corridor (DMIC). Located near Aurangabad at Shendra and Bidkin, AURIC is managed by Aurangabad Industrial Township Limited (AITL), a Special Purpose Vehicle (SPV) between the Maharashtra Industrial Development Corporation (MIDC) and the National Industrial Corridor Development and Implementation Trust (NICDC Trust). The city dedicates 60% of its land to industrial use, with the remaining 40% for residential, commercial, and recreational facilities.

Integrated Industrial Township, Greater Noida (Uttar Pradesh)

DMIC Integrated Industrial Township Greater Noida Limited (DMIC IITGNL) is a Special Purpose Vehicle (SPV) Company incorporated as a

50:50 joint venture between the National Industrial Corridor Development and Implementation Trust (NICDIT) and Greater Noida Industrial Development Authority (GNIDA).

Integrated Industrial Township, Vikram Udyogpuri (Madhya Pradesh)
Delhi Mumbai Industrial Corridor Vikram Udyogpuri Limited (DMICVUL) was established to boost employment, industrial output, and regional exports by attracting quality industrial investments and providing world-class infrastructure. The Vikram Udyogpuri (VU) project is designed to create a sustainable economic base focusing on manufacturing and is supported by institutional, residential, and commercial activities. Located in Narwar village, 8 km from Ujjain and 12 km from Dewas, the project spans 442.3 hectares (1,096 acres) and features trunk infrastructure and supporting social and physical amenities, strategically positioned along State Highway 18 (SH-18) within the DMIC region.

Cabinet Approval of Twelve Industrial Nodes/Cities
India is on the cusp of a significant industrial transformation following the Cabinet Committee on Economic Affairs' recent approval of 12 new project proposals under the National Industrial Corridor Development Programme (NICDP). This landmark decision, chaired by Prime Minister Shri Narendra Modi, involves an estimated investment of ₹28,602 crore. The initiative aims to create a strong network of industrial nodes and cities, driving economic growth and enhancing the country's global competitiveness. These 12 industrial areas, strategically located across ten states and planned along six major corridors, will advance India's manufacturing capabilities and economic expansion. The approved cities include:

- *Khurpia, Uttarakhand*
- *Rajpura-Patiala, Punjab*

- *Dighi, Maharashtra*
- *Palakkad, Kerala*
- *Agra, Uttar Pradesh*
- *Prayagraj, Uttar Pradesh*
- *Gaya, Bihar*
- *Zaheerabad, Telangana*
- *Orvakal, Andhra Pradesh*
- *Kopparthy, Andhra Pradesh*
- *Jodhpur-Pali, Rajasthan*

Approving twelve new industrial nodes under the NICDP marks a significant milestone in India's journey towards becoming a global manufacturing powerhouse. With a strategic focus on integrated development, sustainable infrastructure, and seamless connectivity, these projects are poised to redefine India's industrial landscape and fuel the nation's economic growth for years.

Beyond these new approvals, NICDP has already completed four projects, with another four currently under implementation. This continued progress underscores the government's unwavering commitment to transforming India's industrial sector and fostering a vibrant, sustainable, and inclusive economic environment.

Conclusion

In conclusion, the National Industrial Corridor Development Programme (NICDP) represents a transformative initiative poised to reshape India's industrial landscape and position the country as a global manufacturing leader. The recent cabinet approval of 12 new industrial nodes underscores the government's unwavering commitment to fostering economic growth, creating employment opportunities, and advancing sustainable development. These projects will bolster India's manufacturing capabilities and serve as catalysts for regional economic upliftment, driving the nation towards a vision of a self-reliant and developed India. As these industrial corridors come to fruition, they will play a pivotal role in shaping the future of India's economy, enhancing its global competitiveness, and ensuring long-term prosperity for the nation.

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Combined Index of Eight Core Industries in July 2024 as Compared to July 2023

The combined Index of Eight Core Industries (ICI) increased by 6.1 percent (provisional) in July 2024 compared to July 2023. Steel, Electricity, Coal, Refinery Products, Cement, and Fertilizers produced positive growth in July 2024. The details of annual indices, monthly indices, and growth rates are provided in Annex I and Annex II.

The ICI measures the combined and individual performance of production in eight core industries: cement, Coal, Crude Oil, Electricity, Fertilizers, Natural Gas, Refinery Products, and Steel. The Eight Core Industries comprise 40.27 percent of the weight of items included in the Index of Industrial Production (IIP).

The final growth rate of the Index of Eight Core Industries for April 2024 stands at 6.9 percent. The cumulative growth rate of ICI from April to July 2024-25 is 6.1 percent (provisional) compared to the corresponding period last year.

The summary of the Index of Eight Core Industries is given below:
Cement - Cement production (weight: 5.37 percent) increased by 5.5 percent in July 2024 over July 2023. Its cumulative index increased by 1.6 percent from April to July 2024-25 over the corresponding period of the previous year.

Coal production (weight: 10.33 percent) increased by 6.8 percent in July 2024 over July 2023. Its cumulative index increased by 9.9 percent from April to July 2024-25 over the corresponding period of the previous year.

Crude Oil—Crude Oil production (weight: 8.98 percent) declined by 2.9 percent in July 2024 over July 2023. Its cumulative index declined by 1.3 percent from April to July 2024-25 over the corresponding period of the previous year.

Electricity—Electricity generation (weight: 19.85 percent) increased by 7.0 percent in July 2024 over July 2023. Its cumulative index increased by 9.9 percent from April to July 2024-25 over the corresponding period of the previous year.

Fertilizers - Fertilizer production (weight: 2.63 percent) increased by 5.3 percent in July 2024 over July 2023. Its cumulative index increased by 1.3 percent from April to July 2024-25 over the corresponding period of the previous year.

Natural Gas - Natural Gas production (weight: 6.88 percent) declined by 1.3 percent in July 2024 over July 2023. Its cumulative index increased by 4.3 percent from April to July 2024-25 over the corresponding period of the previous year.

Petroleum Refinery Products - Petroleum Refinery production (weight: 28.04 percent) increased by 6.6 percent in July 2024 over July 2023. Its cumulative index increased by 2.3 percent from April to July 2024-25 over the corresponding period of the previous year.

Steel production (weight: 17.92 percent) increased by 7.2 percent in July 2024 over July 2023. Its cumulative index increased by 7.6 percent from April to July 2024-25 over the corresponding period of the previous year.

Note 1: Data for May 2024, June 2024, and July 2024 are provisional. Index numbers of Core Industries are revised/finalized according to updated data from source agencies.
Note 2: Since April 2014, electricity generation data from renewable sources have also been included.
Note 3: The industry-wise weights indicated above are individual industry weights derived from IIP and blown up pro-rata to a combined ICI weight equal to 100.
Note 4: Since March 2019, a new steel product called Hot Rolled Pickled and Oiled (HRPO) has also been included under the item 'Cold Rolled (CR) coils' has also been included in the production of finished steel.

Note 5: The index release for August 2024 was on Monday 30th September, 2024.

Annex I: *Performance of Eight Core Industries*

Yearly Index & Growth Rate [*Base Year: 2011-12=100]*

Index

Sector	*Coal*	*Crude Oil*	*Natural Gas*	*Refinery Products*	*Fertilizers*	*Steel*	*Cement*	*Electricity*	*Overall Index*
Weight	*10.33*	*8.98*	*6.88*	*28.04*	*2.63*	*17.92*	*5.37*	*19.85*	*100.00*
2012-13	103.2	99.4	85.6	107.2	96.7	107.9	107.5	104.0	*103.8*
2013-14	104.2	99.2	74.5	108.6	98.1	115.8	111.5	110.3	*106.5*
2014-15	112.6	98.4	70.5	108.8	99.4	121.7	118.1	126.6	*111.7*
2015-16	118.0	97.0	67.2	114.1	106.4	120.2	123.5	133.8	*115.1*
2016-17	121.8	94.5	66.5	119.7	106.6	133.1	122.0	141.6	*120.5*
2017-18	124.9	93.7	68.4	125.2	106.6	140.5	129.7	149.2	*125.7*
2018-19	134.1	89.8	69.0	129.1	107.0	147.7	147.0	156.9	*131.2*
2019-20	133.6	84.5	65.1	129.4	109.8	152.6	145.7	158.4	*131.6*
2020-21	131.1	80.1	59.8	114.9	111.6	139.4	130.0	157.6	*123.2*
2021-22	142.3	77.9	71.3	125.1	112.4	163.0	156.9	170.1	*136.1*
2022-23	163.5	76.6	72.4	131.2	125.1	178.1	170.6	185.2	*146.7*
2023-24	182.7	77.1	76.8	135.9	129.8	200.4	185.7	198.3	*157.8*
Apr-Jul 2023-24	161.0	77.3	73.6	136.1	129.9	191.8	186.2	200.8	*154.4*
*Apr-Jul 2024-25 **	176.9	76.3	76.8	139.3	131.6	206.5	189.2	220.6	*163.9*

*Provisional

Growth Rates (on Y-o-Y basis in percent)

Sector	*Coal*	*Crude Oil*	*Natural Gas*	*Refinery Products*	*Fertilizers*	*Steel*	*Cement*	*Electricity*	*Overall Growth*
Weight	*10.33*	*8.98*	*6.88*	*28.04*	*2.63*	*17.92*	*5.37*	*19.85*	*100.00*
2012-13	3.2	-0.6	-14.4	7.2	-3.3	7.9	7.5	4.0	*3.8*
2013-14	1.0	-0.2	-12.9	1.4	1.5	7.3	3.7	6.1	*2.6*
2014-15	8.0	-0.9	-5.3	0.2	1.3	5.1	5.9	14.8	*4.9*

2015-16	4.8	-1.4	-4.7	4.9	7.0	-1.3	4.6	5.7	*3.0*
2016-17	3.2	-2.5	-1.0	4.9	0.2	10.7	-1.2	5.8	*4.8*
2017-18	2.6	-0.9	2.9	4.6	0.03	5.6	6.3	5.3	*4.3*
2018-19	7.4	-4.1	0.8	3.1	0.3	5.1	13.3	5.2	*4.4*
2019-20	-0.4	-5.9	-5.6	0.2	2.7	3.4	-0.9	0.9	*0.4*
2020-21	-1.9	-5.2	-8.2	-11.2	1.7	-8.7	-10.8	-0.5	*-6.4*
2021-22	8.5	-2.6	19.2	8.9	0.7	16.9	20.8	8.0	*10.4*
2022-23	14.8	-1.7	1.6	4.8	11.3	9.3	8.7	8.9	*7.8*
2023-24	11.8	0.6	6.1	3.6	3.7	12.5	8.9	7.1	*7.6*
Apr-Jul 2023-24	10.1	-1	2.3	2.3	9.1	16.1	11.3	2.9	*6.6*
*Apr-Jul 2024-25 **	9.9	-1.3	4.3	2.3	1.3	7.6	1.6	9.9	*6.1*

*Provisional.

Y-o-Y is calculated over the corresponding financial year of previous year

Annex II: *Performance of Eight Core Industries*

Monthly Index & Growth Rate [*Base Year: 2011-12=100]*

Index

Sector	*Coal*	*Crude Oil*	*Natural Gas*	*Refinery Products*	*Fertilizers*	*Steel*	*Cement*	*Electricity*	*Overall Index*
Weight	*10.33*	*8.98*	*6.88*	*28.04*	*2.63*	*17.92*	*5.37*	*19.85*	*100.00*
Jul-23	152.6	78.9	79.0	134.4	131.8	191.7	166.1	204.0	*153.2*
Aug-23	150.3	78.4	80.3	135.4	133.3	198.4	182.0	220.5	*158.6*
Sep-23	147.9	74.9	76.8	126.8	132.3	198.4	166.2	205.9	*151.7*
Oct-23	172.6	78.4	80.3	128.8	136.4	201.4	181.5	203.8	*156.4*
Nov-23	185.7	75.5	77.2	134.5	133.5	192.6	156.5	176.3	*150.4*
Dec-23	204.3	77.4	79.5	145.0	137.5	206.7	191.9	181.6	*161.2*
Jan-24	219.6	78.8	79.3	135.9	135.0	217.8	192.2	197.2	*165.4*
Feb-24	212.1	73.5	74.5	132.5	113.3	202.9	194.3	187.2	*157.7*
Mar-24	256.0	78.9	79.3	147.0	116.6	219.8	219.4	204.2	*175.0*
Apr-24	173.3	76.3	74.8	137.9	117.8	210.0	192.3	212.0	*161.7*

*May-24**	184.7	77.9	78.7	141.8	135.9	205.5	190.6	229.3	*167.4*
*Jun-24**	186.4	74.4	75.8	134.1	134.0	204.8	198.7	222.8	*163.9*
*Jul-24**	163.0	76.6	78.0	143.3	138.8	205.5	175.2	218.3	*162.5*

*Provisional

Growth Rates (on Y-o-Y basis in percent)

Sector	*Coal*	*Crude Oil*	*Natural Gas*	*Refinery Products*	*Fertilizers*	*Steel*	*Cement*	*Electricity*	*Overall Growth*
Weight	*10.33*	*8.98*	*6.88*	*28.04*	*2.63*	*17.92*	*5.37*	*19.85*	*100.00*
Jul-23	14.9	2.1	8.9	3.6	3.3	14.9	6.9	8.0	*8.5*
Aug-23	17.9	2.1	9.9	9.5	1.8	16.3	19.7	15.3	*13.4*
Sep-23	16.0	-0.4	6.6	5.5	4.2	14.8	4.7	9.9	*9.4*
Oct-23	18.4	1.3	9.9	4.2	5.3	13.6	17.0	20.3	*12.7*
Nov-23	10.9	-0.4	7.6	12.4	3.4	9.8	-4.8	5.7	*7.9*
Dec-23	10.8	-1.0	6.6	4.0	5.8	8.3	3.8	1.2	*5.0*
Jan-24	10.6	0.7	5.5	-4.3	-0.6	9.2	4.0	5.7	*4.1*
Feb-24	11.6	7.9	11.3	2.6	-9.5	9.4	7.8	7.6	*7.1*
Mar-24	8.7	2.1	6.3	1.6	-1.3	7.5	10.6	8.6	*6.3*
Apr-24	7.5	1.7	8.6	3.9	-0.8	9.8	0.2	10.2	*6.9*
*May-24**	10.2	-1.1	7.5	0.5	-1.7	6.8	-0.6	13.7	*6.4*
*Jun-24**	14.8	-2.6	3.3	-1.5	2.4	6.7	1.9	8.6	*5.1*
*Jul-24**	6.8	-2.9	-1.3	6.6	5.3	7.2	5.5	7	*6.1*

*Provisional.

Y-o-Y is calculated over the corresponding financial year of previous year

12
Keywords Emerging from Newspaper Editorial Analysis

We have tried to analyse the lead stories of newspapers from a unique perspective. This document is a creation of editorial analysis of various newspaper editorials/op-eds covering important topics such as:

- The need for the use of labour statistics (The Hindu).

- Reading caste in inequality debate (Hindustan Times).

- Climate finance needs overhaul, funds influx (Hindustan Times).

- Onion exports: The poll factor (Hindustan Times).

- Getting to a new level in India's online gaming sector (The Hindu).

- Plastic Solution (The Hindu).

- Israel has lost the plot on Gaza (Hindustan Times).

- The era of the politics of performance (The Hindu).

- Key to staying healthy is diet (Hindustan Times).

- Saving Trees to beat the heat (Hindustan Times).

- Mission Purvodaya.

- Mission Sagar.

- World Development Information Day.

- Karbi Anglong Agreement.

To enhance the utility of the document, we have marked the key words/phrases and created a lexicon of the same. Following key words/phrases/concepts have emerged.

1. Labour institutions.
2. Industrial relations system and labour market (IRS – LM).
3. Trade Unions.
4. Collective Bargaining.
5. Social Dialogue.
6. May Day.
7. US Secretary of State Antony Blinken.
8. President Xi Jingping.
9. Revisionist Power.
10. Export Controls.
11. Fentanyl. etc,
12. Global Food Security.
13. Joules
14. Drought.

15. Anthropogenic.
16. New Collective Qualified Goal (NCQG).
17. Hamas.
18. Yevgeny Prigozhin.
19. OPEC+.
20. World Trade Organization.
21. Quad.
22. Khejri (Prosposis Cineraria).
23. Bhaskaracharya.
24. Zero Shadow Day.

It has a total of 144 terms.

For details please refer to the document – ***Summary & Analysis***. It's available for free download at our blog site– theknowledgeandlearningenterprise.com

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13
Anemia: Rashtriya Poshan Mah 2024

Anemia is one of the significant themes celebrated this year by *Poshan Mah*. Anemia has always been one of the key focus areas under *Jan Andolans* so far. Anemia is a health concern, mainly affecting young children, adolescent girls, pregnant, postpartum women, and women of reproductive age. The period of adolescence is the right window of opportunity to correct any nutritional pitfalls in young adolescents and prevent the intergenerational effects of Anemia on future generations.

To give high importance to issues around Anemia, the Ministry of WCD, in collaboration with relevant Ministries/ Departments, took up dedicated anemia-related themes and activities in the previous *Jan Andolans* for mass sensitization. In the last Poshan Mah held in September 2023, more than 35 crore sensitization activities were reported, of which around four crore were focused on Anemia.

Furthermore, the Ministry of WCD, in coordination with the Ministry of Ayush, is implementing an initiative to manage Anemia and improve the nutritional status of adolescent girls (aged 14-18 years) in five Utkarsh Districts. This evidence-based ayurveda intervention, comprising *drakshavaleha* and *punarnava mandoor*, holds the potential to significantly improve the health and well-being of these girls, fostering a sense of hope and optimism for the future.

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14
Launch of AgriSURE Fund

AgriSURE: Agri Fund for start-ups and rural enterprises is an innovative fund that is a pioneering step toward revolutionizing the agricultural landscape in India. AgriSURE is designed to fuel growth and foster innovation in the agricultural and rural start-up ecosystem with a focus on technology-driven, high-risk, high-impact ventures. It is a blended capital fund of ₹750 crore with SEBI registered category II, Alternative Investment Fund (AIF). The fund's financial backing is robust, with contributions from the Government of India, NABARD, and mobilized from banks, insurance companies, and private investors.

With the introduction of the AgriSURE fund, the government aims to further drive investments in the agriculture sector, accelerating accessible and affordable innovative solutions that will empower farmers and boost the rural economy.

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15
ONDC Receives Gold Award for "Application of Emerging Technologies for Providing Citizen-Centric Services" at 27th National Conference on e-Governance

The Open Network for Digital Commerce (ONDC) was awarded the prestigious Gold Award in the category "Application of Emerging Technologies for Providing Citizen-Centric Services" in the National Awards for e-Governance (NAeG) during the 27th National Conference on e-Governance (NCeG).

The National Awards for e-Governance by the Department of Administrative Reforms and Public Grievances (DARPG) is among the country's most competitive and prestigious digital governance recognition. The award's objective is to recognize and promote excellence in the implementation of e-governance initiatives and to encourage innovation in successful e-governance solutions. The NAeG is conferred under different categories yearly during the National Conference on E-Governance (NCeG). The DARPG organizes the annual conference with the Ministry of Electronics and Information Technology (MeitY), and the respective state governments host the event. The Government of Maharashtra hosted the 27th Edition of the NCeG in Mumbai, Maharashtra.

ONDC, a key building block of India's globally renowned Digital Public Infrastructure (DPI), was conceptualized by the Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry, as a bridge between public service delivery and technological enablement of the retail trade sector at large. What sets ONDC apart is its unique approach towards massifying e-commerce, i.e. the deployment of technological led interventions. By being interoperable, unbundled, and decentralized, ONDC splits a

complex system into discrete microservices that different players can offer separately, with positive outcomes for all. ONDC's architecture fosters trust in the e-commerce system. ONDC is now enabling more than 12 million orders per month, spread across categories ranging from fashion to electronics in products, and ride-hailing to metro ticketing in services. Recently, ONDC crossed another milestone of having over 6 lakh sellers across India live on the network.

ONDC is not just a technological innovation, but a catalyst for change in the e-commerce landscape. It empowers a diverse range of sellers, including lakhs of small businesses, artisans, women entrepreneurs, farmers, and street vendors to compete effectively and reach a wider audience. This democratization of e-commerce has fostered competition and innovation, making sure consumers benefit from increased choice and competitive prices. ONDC operates with a startup mindset and Government scale approach, adapting to evolving market dynamics with agility, driven by a team of technocrats and mentored by the veteran ONDC Advisory Council.

ONDC is further expanding its capabilities for deeper and greater integration with key government platforms. This is intended to further enhance ease of doing business, faster access to credit, and data flow among Government platforms. ONDC will make it possible for interlocks and linkages across Government platforms to serve a common set of beneficiaries for the achievement of unified objectives.

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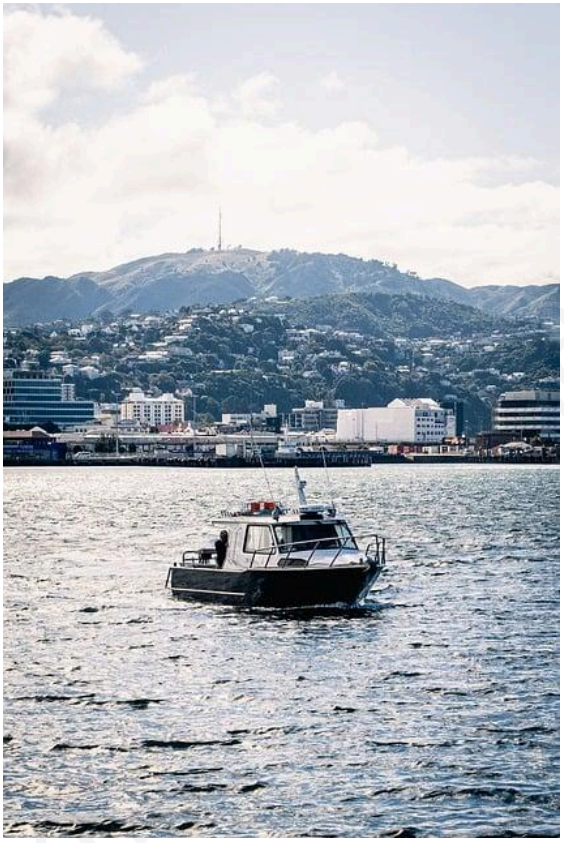
16

Centre for Marine Living Resources and Ecology (CMLRE)

The Centre for Marine Living Resources and Ecology (CMLRE), an attached Ministry of Earth Sciences office, conducted a national-level workshop on the Indian Ocean Biodiversity Information System (IndOBIS). The workshop brought together scientists and researchers from various institutions across the country and helped raise awareness among the participants about marine biodiversity data documentation and publishing.



IndOBIS is the Indian regional node of the global Ocean Biodiversity Information System (OBIS). OBIS is one of the largest global repositories of information on marine species, containing millions of records from thousands of datasets contributed by researchers, governments, and organizations worldwide. It provides detailed information on species distribution across the world's oceans, including data on their occurrence, habitats, and environmental parameters. It offers tools and services that allow users to search, visualize, and download biodiversity data. OBIS is supported by a network of nearly 30 regional nodes contributing data while ensuring the data's quality and accessibility. OBIS is a ready reference resource in marine science, conservation, and education. It has been set up by the Intergovernmental Oceanographic Commission (IOC) of UNESCO for promoting marine

science, conservation, and sustainable development. It is now an integral component of the International Oceanographic Data and Information Exchange (IODE) of IOC.

The IndOBIS workshop was a valuable platform for training and capacity building in data acquisition, analysis, and management, especially for marine biodiversity in the Indian Ocean. As the data accepted to IndOBIS is scientifically quality-controlled and geotagged, it can be used in innovative studies such as tracking species distribution, identifying biodiversity hotspots, and accessing climate change impacts, which is crucial for developing adaptive management strategies and supporting sustainable fisheries.

Aligned with the objective of IndOBIS to generate awareness of marine biodiversity, CMLRE has also developed a mobile application called *Ocean Eyes*. The *Ocean Eyes* mobile app is a citizen-centric and community-engagement approach to data collection, sharing, and analysis in marine biodiversity monitoring and research. With its user-friendly interface and availability on both iOS and Android platforms, the app empowers citizens and users to contribute to the understanding of marine biodiversity and ecological changes over time. Real-time reporting of observations to IndOBIS is also possible through *Ocean Eyes.*

The IndOBIS is the only Indian regional node of OBIS, which has been developed, facilitated, and is being run by CMLRE. It accepts several categories of marine biodiversity data types, including literature and occurrence, abundance records, DNA-derived or genomic profiles, etc.

CMLRE, a premier research institution under the Ministry of Earth Sciences, is a beacon of inspiration in the field of marine science.

Established in 1998, it is dedicated to studying and sustainably managing marine living resources in India. The institution is crucial in advancing marine science, conducting cutting-edge research, and supporting policy development to protect and conserve India's aquatic ecosystems. CMLRE maintains voucher (preserved) specimens of deep-sea biodiversity as part of the IndOBIS objectives. IndOBIS can be accessed at https://indobis.in/.

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"Life shrinks or expands in proportion to one's courage."

Anaïs Nin

17
DGFT Updates the SCOMET List with Recent Policy Changes and Updates in the Multilateral Export Control Regimes

Directorate General of Foreign Trade (DGFT), Ministry of Commerce & Industry, has notified the updated SCOMET list for the year 2024. India's export control list (SCOMET) has been updated, incorporating the recent changes /updates in the control lists of the multilateral export control regimes and certain policy amendments in our national system based on inputs from relevant government organizations and stakeholders.

With the recent update, DGFT has also authorized the Department of Defence Production (DDP), MoD, to be the licensing authority for the export of all items falling under Category 6 of SCOMET for military end-use. This move streamlines certain exclusions existing earlier, ensuring a more efficient and effective licensing process.

India has a robust legal and regulatory framework on strategic trade and related non-proliferation matters. As a member of the major multilateral export control regimes, we harmonize our guidelines and control lists with those of these regimes and the Nuclear Suppliers Group. This international alignment ensures the security and integrity of our strategic trade controls.

Accordingly, India regulates the exports of dual-use items, nuclear-related items, and military items, including software and

technology, under the SCOMET (Special Chemicals Organisms Materials Equipment and Technologies) list, which is notified by DGFT under the Foreign Trade Policy.

The emergence of strategic trade controls as an important area has been acknowledged in the Foreign Trade Policy 2023, where the SCOMET processes and procedures have been consolidated in one place to provide a better understanding of the Industry and for effective compliance. As the exports under the SCOMET have increased substantially during the last three years, DGFT has taken several initiatives, based on regular interactions with the Industry to facilitate authorized and responsible export of these high-end goods and technologies, which includes strengthening DGFT's e-platform for licensing, laying down a liberalized General Authorization policy for items such as drones, dual-use chemicals, telecommunication equipment, information security systems, and for Repairs in India, Repeat Order for Stock & Sale Policy, Intra Company Transfers (GAICT), among many others.

DGFT has notified the SCOMET List under Appendix 3 to Schedule 2 of ITC (HS) Classification of Export and Import Items. The policy and procedures under SCOMET are outlined in Chapter 10 of FTP and HBP 2023, and the list is regulated under Chapter IVA of the Foreign Trade (Development & Regulation) Act, 1992, as amended in 2010.

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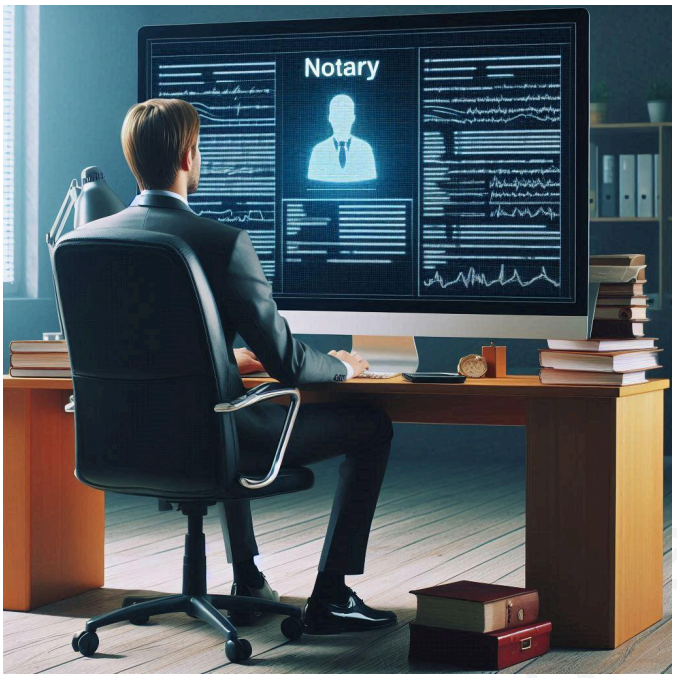
18
New Notary Portal Launched to Make Appointment of Notaries Seamless, Efficient and Transparent



The Notary Portal provides an online interface between the notaries and the government for various services, such as submitting applications for appointment as notaries, issuance and renewal of Certificates of Practice, change of practice area, submission of annual returns, etc. With the launch of the Notary Portal, the Central Notaries will not be required to submit applications/ requests in physical mode. They can submit applications online, monitor their progress, and download digitally signed Certificates of Practice from their Digilocker accounts.

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"Laughter is the language of soul"
Pablo Neruda

19
Removing Toxic Chromium Using Sunlight Can Lower Cost of Wastewater Treatment

INST researchers have pioneered a groundbreaking, low-cost method to eliminate toxic Chromium from wastewater in industries like leather tanning and electroplating. This innovative approach harnesses the power of sunlight as a catalyst, in conjunction with microfluidic technology.

The toxicity of hexavalent Chromium is a severe concern. According to WHO reports, the tolerable concentrations of hexavalent and trivalent Chromium in drinking water are limited to 0.05 mg/L and 5 mg/L. Thus, reducing this hexavalent form of Chromium becomes imperative to the trivalent form.

Several chemical and physiochemical methods, such as ion exchange, adsorption, and bacterial and chemical reduction, have been employed to remove Cr(VI). Most of these techniques are costly and have low Cr(VI) removal efficiencies.

The research group from the Institute of Nano Science and Technology (INST), Mohali, an autonomous institute of the Department of Science and Technology, has developed a new technique of removing toxic Cr(VI) ions by utilizing sunlight for the catalytic process in combination with microfluidic technology to convert the toxic hexavalent form of Chromium to a less toxic trivalent form. They used *continuous flow photoreduction* and validated this process in wastewater using TiO2 nanoparticles with the help of a smartphone-based colorimetric technique.

Moreover, the cost-effectiveness of this method, coupled with the use of renewable energy, makes it a reassuring choice. With the microfluidics route, the reduction efficiency can be precisely tailored by adjusting the flow rate of the organic pollutant, reactor dimension, and architecture. One of the most advantageous features of using microreactors is the reusability of the photocatalyst without any recovery agents or cumbersome processes.

Various microfluidic parameters, such as reactor design, flow rate, channel length, and different catalyst phases, were fine-tuned to achieve superior degradation efficiency. Superior degradation efficiency of 95 % was attained by utilizing a serpentine microreactor coated with a photocatalyst in the pure anatase phase at a flow rate of 50 μl/min.

The researchers started the process by fabricating microfluidic reactors and synthesizing nanocatalysts. Next, the nanocatalyst was immobilized onto the microreactor bed, and flow experiments were performed. The extent of conversion was monitored using a change in absorbance via UV-Vis spectroscopy. This was followed by evaluating the reactor performance on the basics of the microreactors' and photocatalyst's long-term stability with respect to the number of cycles or volume processed.

This work, published in the prestigious Chemical Engineering Journal, not only showcases the potential of this method but also its practicality in industrial settings. By increasing the throughput of the approach, either through parallel microfluidic reactors or by enhancing the bulk reactor surface, the efficiency of the process can be significantly improved after repetitive use.

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20
India Graphene Engineering and Innovation Centre (IGEIC)

The Ministry of Electronics and Information Technology (MeitY), Government of India, has officially announced the launch of the **India Graphene Engineering and Innovation Centre (IGEIC)**, a key initiative under the vision of **Viksit Bharat@2047.**

IGEIC is the first of its kind, a not-for-profit section 8 company, exclusively incorporated to create a hub of excellence in graphene technology commercialization. It focuses on a range of applications, from electronics and energy storage to healthcare to material coating and conveyance systems and sustainable material development.

India's leadership in graphene technology

IGEIC, articulated as India's push towards leadership in graphene technology commercialization, is strategically located with its **R&D setup** in Trivandrum, Kerala, and a Corporate & Business Development hub in Bangalore, Karnataka. The manufacturing unit, supported by the **Government of Kerala**, is situated in Palakkad, Kerala, creating a comprehensive ecosystem for developing and commercializing graphene technology. This program shall build the Graphene ecosystem in the country with startups, SMEs, academia, industry, and Government, including bilateral collaborations forming part of this global initiative.

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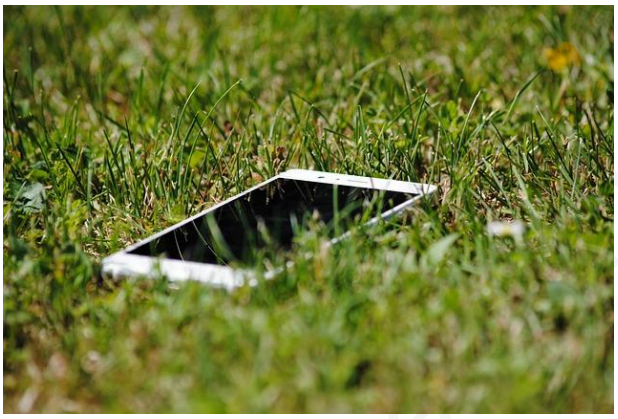
21
Digital Agriculture Mission: Tech for Transforming Farmers' Lives

Introduction.

In recent years, India's digital revolution has significantly transformed governance and service delivery by creating digital identities and secured payments and transactions. This progress has paved the way for a thriving digital ecosystem across various sectors, including finance, healthcare, education, and retail, positioning India as a leader in citizen-centric digital solutions.



The Digital Agriculture Mission is designed as an umbrella scheme to support various digital agriculture initiatives. These include creating Digital Public Infrastructure (DPI), implementing the Digital General Crop Estimation Survey (DGCES), and supporting IT initiatives by the Central Government, State Governments, and Academic and Research Institutions.

The scheme is built on two foundational pillars:

- Agri Stack
- Krishi Decision Support System.

Additionally, the mission includes ''*Soil Profile Mapping*'' and aims to enable farmer-centric digital services to provide timely and reliable information for the agriculture sector.

1. AgriStack: Kisan ki Pehchaan

AgriStack is designed as a farmer-centric Digital Public Infrastructure (DPI) to streamline services and scheme delivery to farmers. It comprises three key components:

1. Farmers' Registry
2. Geo-referenced village maps
3. Crop Sown Registry

A crucial feature of AgriStack is the introduction of a "Farmer ID," similar to the Aadhaar card, which serves as a trusted digital identity for farmers. These IDs, created and maintained by the state governments/ union territories, will be linked to various farmer-related data, including land records, livestock ownership, crops sown, and benefits availed.

The implementation of AgriStack is progressing through partnerships between the central and state Governments. Nineteen states have signed MoUs with the Ministry of Agriculture. Pilot projects have been conducted in six states to test the creation of Farmer IDs and the Digital

Crop Survey. The six states include Uttar Pradesh (Farrukhabad), Gujarat (Gandhinagar), Maharashtra (Beed), Haryana (Yamuna Nagar), Punjab (Fatehgarh Sahib), and Tamil Nadu (Virudhnagar).

2. Krishi Decision Support System

The Krishi Decision Support System (DSS) will integrate remote sensing data on crops, soil, weather, and water resources into a comprehensive geospatial system.

3. Soil Profile Mapping

Under the mission, detailed soil profile maps on a 1:10,000 scale for approximately 142 million hectares of agricultural land have been envisaged, with 29 million hectares of soil profile inventory already being mapped. Further, under the Digital Agriculture Mission, the Digital General Crop Estimation Survey (DGCES) will be used for crop-cutting experiments to provide precise yield estimates, enhancing agricultural production accuracy.

The mission is expected to create direct and indirect employment in agriculture, providing opportunities for around 2,50,000 trained local youth and Krishi Sakhis. By leveraging modern technologies like data analytics, AI, and remote sensing, the mission will improve service delivery for farmers, including streamlined access to government schemes, crop loans, and real-time advisories.

Critical Components of the Mission

The Digital Agriculture Mission focuses on grassroots implementation, targeting farmers as the primary beneficiaries.

Some of the key benefits of the mission include:

1. Digital authentication is used to access services and benefits, reduce paperwork, and reduce the need for physical visits.

2. Enhanced efficiency and transparency in government schemes, crop insurance, and loan systems through accurate crop area and yield data.
3. Crop map generation and monitoring for better disaster response and insurance claims.
4. Development of digital infrastructure to optimize value chains and provide tailored advisory services for crop planning, health, pest management, and irrigation.

Digital Public Infrastructure for Agriculture

Union Finance Minister Nirmala Sitharaman announced in the Union Budget 2024-25 that the Government, in partnership with states, will implement Digital Public Infrastructure (DPI) for agriculture over the next three years. This initiative will cover farmers and their lands. A digital crop survey for Kharif is planned for 400 districts this year. The goal is to update registries with details of 6 crore farmers and their lands.

The Union Budget 2023-24 had previously introduced the DPI for agriculture, which aims to provide comprehensive data on farmers, including demographic details, land holdings, and crops sown. The DPI will integrate with state and central digital infrastructures to offer farmer-centric services, including information on livestock, fisheries, soil health, and available benefits.

These comprehensive approaches leverage digital technologies to enhance productivity, efficiency, and sustainability in India's agricultural sector, potentially transforming the lives of millions of farmers across the country. By extending the digital revolution to agriculture, India aims to further solidify its position as a global leader in innovative, technology-driven solutions for critical sectors of the economy.

22
India's Textile Industry is Expected to Grow to US$350 bn by 2030

India's textile industry is expected to grow to US$350 billion by 2030 and add 3.5 crore jobs. The Union Government's PLI scheme for textiles will enable the apparel industry to boost production and promote its branding. The Minister also added that the PLI scheme will link the textile value chain and lure FDI into the country.

Bharat Tex 2025 is a global textile event organized by a consortium of Textile Export Promotion Councils (EPCs) and supported by the Ministry of Textiles. Scheduled to be held from February 14 to 17, 2025, it is positioned as a global textile trade fair and knowledge platform.

Bharat Tex 2025 aims to build on the resounding success of the last edition in 2024. Built around the twin themes of resilient global value chains and textile sustainability, this year's show promises to be even more vibrant and attractive than the first edition, attracting top policymakers, global CEOs, international exhibitors, and global buyers. The Bharat Tex exhibition will feature Apparel, Home Furnishings, Floor Coverings, Fibres, Yarns, Threads, Fabrics, Carpets, Silk, Textiles, Handicrafts, Technical Textiles, and many more. It will also have a retail High Street focusing on India's fashion retail market opportunities. Besides, exhibitions on handicrafts and apparel machinery and displays of ethnic wear shall be hosted at the sister venue of *India Expo Centre and Mart, Greater Noida.*

The textile extravaganza will offer a range of activities, including a global-sized trade fair and expo, a global-scale textiles conference, seminars, CEO roundtables, and B2B and G2G meetings. It will also

feature strategic investment announcements, product launches, and collaborations poised to reshape the global textile industry. Attendees can look forward to live demonstrations, cultural events, fashion presentations, designer and brand exhibitions, sustainability workshops, and expert talks.

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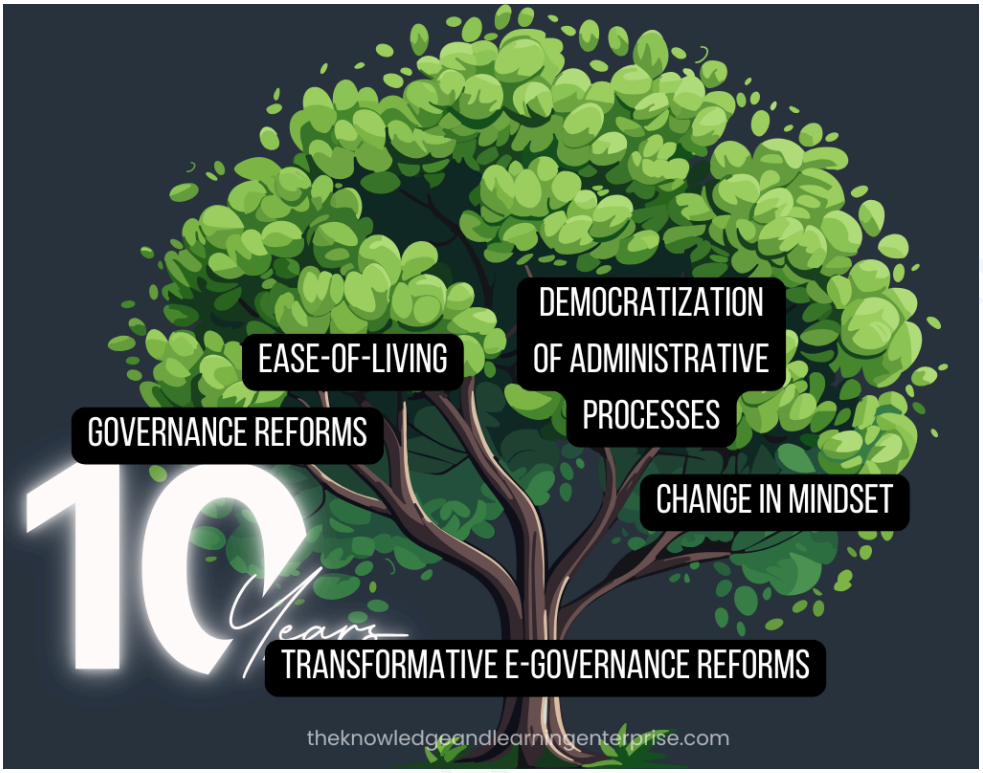
23

A Decade of Transformative E-Governance Reforms



The transformative e-governance reforms have impacted four key areas:

1. **Governance Reforms:** Introducing accountability, transparency, and time-bound service delivery to citizens.
2. **Ease of Living:** Making life simpler for citizens through streamlined processes.
3. **Democratization of Administrative Processes:** Ensuring a level playing field across administrative functions.
4. **Change in Mindset:** Shifting perspectives among administrators and fulfilling the aspirations of ordinary citizens.

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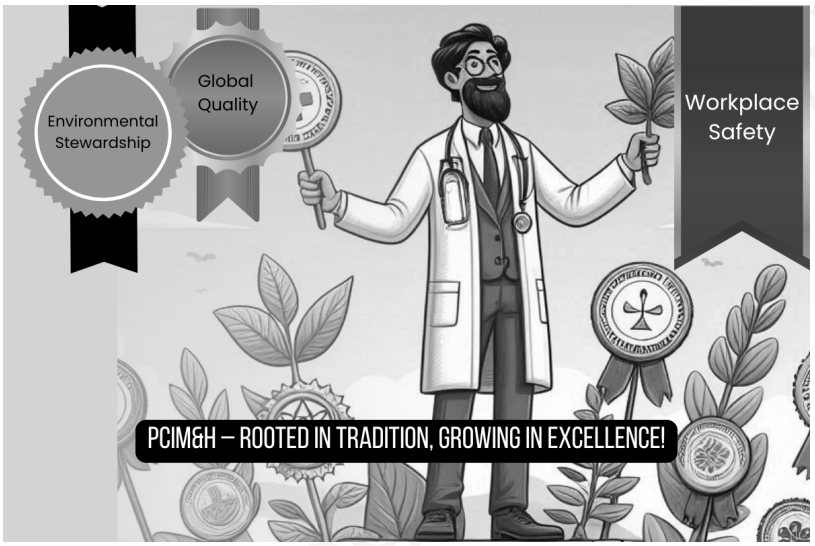
24
PCIM&H Achieves Key ISO/SO IMS Certifications

The Pharmacopoeia Commission for Indian Medicine & Homoeopathy (PCIM&H), under the aegis of the Ministry of Ayush, has achieved the Bureau of Indian Standards (BIS) Integrated Management System (IMS) Certifications. This achievement marks a significant advancement for the Ayush sector, paving the way for enhanced global recognition and setting a new standard for excellence in Indian Medicine and homeopathy.



PCIM&H has been awarded IS/ISO 9001:2015 for its Quality Management System (QMS), IS/ISO 14001:2015 for its Environmental Management System (EMS), and IS/ISO 45001:2018 for its Occupational Health and Safety Management System (OHSMS).

These accolades affirm PCIM&H's commitment to upholding global quality standards, environmental stewardship, and workplace safety. The certifications enhance PCIM&H's operational efficiency and support the Ministry of Ayush's mission to promote high standards in Ayurveda, Siddha, Unani, and Homoeopathy.

These certifications, granted by BIS, reflect PCIM&H's dedication to international standards. The Quality Management System certification

affirms PCIM&H's ability to meet and exceed customer expectations consistently. The Environmental Management System certification highlights the organization's commitment to reducing environmental impact and fostering sustainable practices. The Occupational Health & Safety Management System certification demonstrates PCIM&H's proactive measures in maintaining a safe and healthy work environment.

About Pharmacopoeia Commission for Indian Medicine & Homoeopathy (PCIM&H):

PCIM&H is a leading institution dedicated to establishing and maintaining standards for Indian medicine and homeopathy. Its mission is to ensure the highest quality, safety, and efficacy of medicines through comprehensive standards and guidelines.

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"Sometimes one idea is all you need to change the direction of your life"

Anonymous

25

Workshop on Institutional Development Plan for Higher Education Institutes and Release of UGC Compendium of Regulations (1957-2023)

About the Workshop:

The workshop on Institutional Development Plan (IDP) brings together higher education institutions to discuss strategies for institutional growth and development. The compendium will serve as a valuable resource for institutions as they develop and implement their IDP. Over 170 representatives from HEIs (Higher Educational Institutions) across India are participating in this workshop. Aligning with the National Education Policy (NEP) 2020, the IDP provides institutions with a clear roadmap to develop their vision, mission, and goals for a future-ready education system.

About UGC Compendium:

UGC has prepared a Compendium of all UGC Regulations, Rules, and Notifications from 1957 to 2023 to provide a single reference source to all the stakeholders. The compendium includes 15 Rules, 87 Regulations, and 28 Notifications covering a wide range of topics, including inspection, the fitness of institutions for grants, return of information, budget and accounts, establishments, affiliation, autonomy, accreditation, admission & fees, specification of degrees, and other miscellaneous matters.

The compendium provides a one-stop reference for all regulatory requirements, ensuring institutions can easily access and comply with UGC guidelines. This is expected to streamline operations and support informed decision-making, creating an environment of compliance and best practices. This compendium, which has more than 1100 pages, is available as a PDF and e-book on the UGC website.

About IDP:

UGC launched the Institutional Development Plan (IDP) Guidelines on February 6, 2024. The IDP Guidelines will help institutions make a strategic Institutional Development Plan with the joint participation of Board members, institutional leaders, faculty, students, and staff based on which institutions will develop initiatives, assess their progress, and reach their goals.

Visit: https://www.ugc.gov.in/pdfnews/1713699_IDP-Guidelines.pdf

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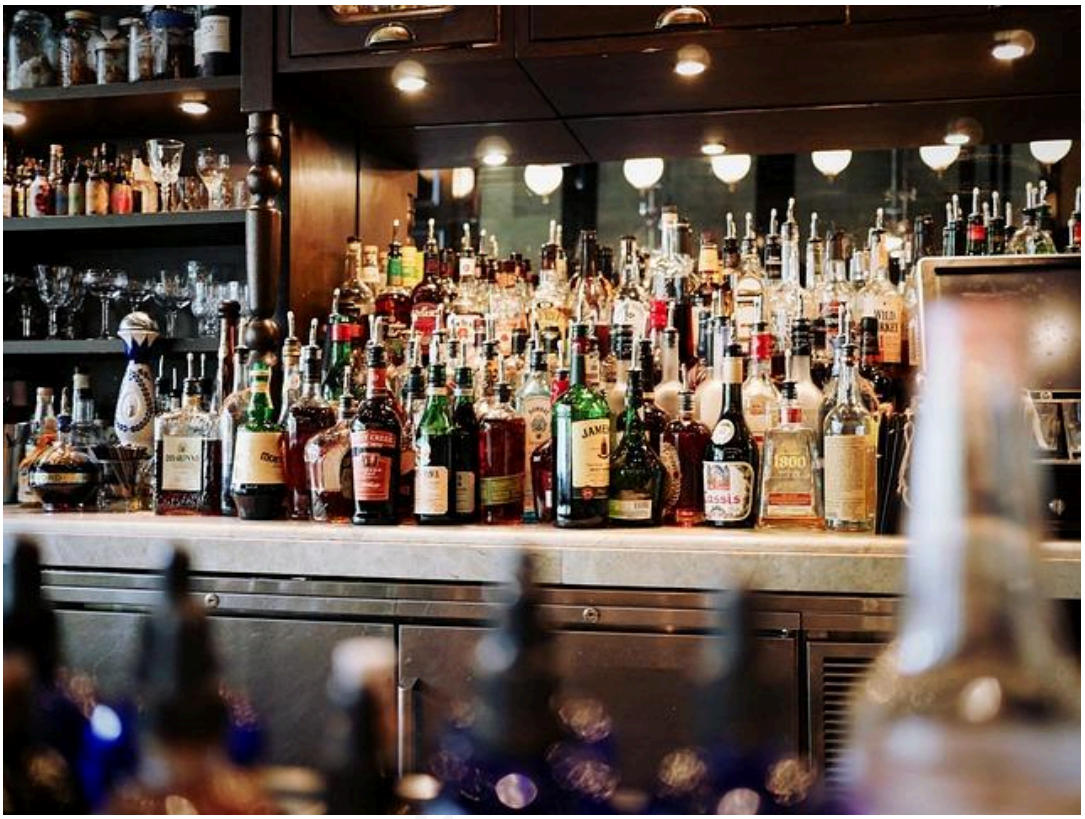
26

APEDA to Promote Alcoholic Beverage Exports as a Part of 'Make in India' Initiative



The global demand for Indian spirits is increasing, presenting an opportunity for growth. The Agricultural and Processed Food Export Development Authority (APEDA) plans to promote Indian alcoholic and non-alcoholic beverages globally with a target of $1 billion in export revenue over the next few years. APEDA, as part of the 'Make in India' initiative, has been targeting increasing exports of Indian spirits to major foreign destinations. India currently ranks 40th in the world for alcoholic beverage exports. In a landmark move for Indian spirits, Single malt whisky is all set to launch in the United Kingdom as an artisanal single malt whisky made in Rajasthan, India.

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New Heat-Based Approach to Cancer Treatment

Researchers have used a combination of ultra-small magnetic nanoparticles (MDs) and a heat shock protein 90 inhibitor (HSP90i) at suboptimal doses for effective magnetic hyperthermia-based cancer therapy. The technique could significantly enhance treatment efficacy by reducing the required chemotherapy dosage as an adjuvant therapy that minimizes side effects.

As cancer rates rise worldwide, the need for new treatment methods is crucial. Traditional treatments like chemotherapy and surgery have significant limitations, including drug resistance and severe side effects. To address these challenges, we are developing innovative treatments with fewer side effects, such as nano therapy.

Scientists of the Institute of Nano Science and Technology (INST), Mohali, an autonomous institute of the Department of Science and Technology, have shown that a combination therapy strategy that uses 17-DMAG, an inhibitor of Heat Shock Protein 90 (HSP90), in conjunction with magnetic hyperthermia-based cancer therapy (MHCT) can improve the effectiveness of heat-based cancer treatments.

Administering the combination through intratumoral injections treated animal models, resulting in maximum glioma cell death in a rat glioma

model. Within eight days, tumor inhibition rates reached 65% and 53% at the primary and secondary tumor sites, respectively.
The method published in ACS Nano is less invasive and causes fewer side effects. The research team demonstrated that MNPs when exposed to an alternating magnetic field (AMF), can effectively combat tumors.

This combined magnetic hyperthermia and chemotherapy (MHCT) approach can reduce the required amount of chemotherapy, making the treatment safer and more effective. Additionally, the therapy can treat distant tumors without needing an additional dose at the secondary tumor site, making it a highly effective cancer treatment.
Extensive global research is needed to realize the clinical application of the new therapy, potentially developing an adjuvant or alternative cancer therapy. The study paves the way for more efficient and tolerable anti-cancer treatments, offering substantial benefits to millions of patients and providing new directions for hyperthermia-based therapies.

A vital advantage of this innovative therapy lies in its potential to stimulate the immune system, enhancing the body's natural defense against cancer. Furthermore, by overcoming drug resistance, a common challenge in cancer treatment, this approach offers a new frontier in combating this formidable disease.

The researchers hypothesize that the treatment activates an immune response through cytokine secretion, enhancing its anti-tumor effects.

Publication link: https://doi.org/10.1021/acsnano.4c03887

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Scientists Take a Major Step Towards Unification of Classical and Quantum Gravity

In a step toward unifying the classical theory of gravitation and quantum mechanics, researchers have obtained an uncertainty relation induced by the noise of gravitons—the hypothetical quantum of gravity—through their calculations. This elementary particle mediates the force of gravitational interaction. While classical physics is a set of laws and equations that describe how ordinary objects behave, quantum physics describes the world of atoms and smaller objects.

Quantum gravity (QG) is a field of theoretical physics that seeks to describe gravity according to the principles of quantum mechanics. It deals with environments where neither gravitational nor quantum effects can be ignored,[1] such as in the vicinity of black holes or similar compact astrophysical objects, such as neutron stars.

It has been shown that treating the gravitational field quantum mechanically induces fluctuations, or noise, in the lengths of the arms of gravitational wave detectors like LIGO's interferometer.

The characteristics of the noise, crucially, depend on the quantum state of the gravitational field. The detection of this fundamental noise would not only constitute direct evidence for the quantization of gravity but also confirm the existence of gravitons. These findings serve as a significant connecting link between Gravitation and Quantum theory, advancing our understanding of the relationship between the two.

Taking forward works like this, Prof. Gangopadhyay and Mr. Soham Sen have examined the fate of freely falling bodies in a quantum

gravitational field. Their calculations have obtained an uncertain relation between the position and momentum variables induced by the noise of gravitons.

The uncertainty relation indicates a true quantum gravitational effect, and the calculations clearly indicate that the particle's degrees of freedom are true couplings with the quantized gravitational field.

"*Our derivation of the generalized uncertainty principle is robust in the sense that the result was obtained by taking into account the quantum nature of gravity*," emphasized Prof. Sunandan Gangopadhyay. This robustness underscores the reliability of our findings and their potential to significantly contribute to the field of quantum gravity research.

Publication links:

1. Soham Sen and Sunandan Gangopadhyay, "Uncertainty principle from the noise of gravitons", Eur. Phys. J. C 84 (2024) 116.
2. S. Chawla and M. Parikh, "Quantum gravity corrections to the fall of an apple", Phys. Rev. D 107 (2023) 066024.

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29

MHI Awards 10 GWh Capacity to One Bidder Under PLI ACC Scheme

The Ministry of Heavy Industries (MHI), Government of India, has announced a significant milestone in the domestic manufacturing sector. Reliance Industries Limited, a key player in the industry, has been awarded 10 GWh ACC capacity under the Production Linked Incentive (PLI) scheme based on the QCBS mechanism. This strategic move is a testament to India's commitment to enhancing domestic manufacturing capacity, reducing import dependence, and positioning itself as a global leader in ACC battery manufacturing.

Ministry of Heavy Industries (MHI) had received bids from seven bidders under global tender for the there-bidding of Production Linked Incentives (PLI) for 10 GWh Advanced Chemistry Cell (ACC) manufacturing with a maximum budgetary outlay of Rs.3,620 crores, announced on 24th January 2024.

The list of bidders (in **alphabetical order**) who had submitted bids in response to this tender were ACME Cleantech Solutions Private Limited, Amara Raja Advanced Cell Technologies Private Limited, Anvi Power Industries Private Limited, JSW Neo Energy Limited, Lucas TVS Limited, Reliance Industries Limited, and Waaree Energies Limited for a cumulative capacity of 70 GWh.

The Ministry ensured a transparent and fair evaluation process. All seven (7) bids were rigorously evaluated, and six (6) companies were shortlisted for financial evaluation as per the requirements under the RFP. The financial bids for the qualified bidders were opened on 2nd August, 2024, after the results of technical evaluation were announced,

maintaining the transparency of the global tender process of RFP through CPP portal of Govt. of India.

The final evaluation of the shortlisted bidders was carried out as per the Quality & Cost Based Selection (QCBS) mechanism, and the bidders were ranked based on their combined technical and financial scores. The Ministry has awarded the 10 GWh PLI ACC capacity to the shortlisted bidder with the highest overall score, i.e., Reliance Industries Limited, and the remaining five shortlisted bidders are put on the waiting list as per their rank, starting from Rank II onwards. Bidders who were waitlisted under the program are ACME Cleantech Solutions Private Limited (Waitlist 1), Amara Raja Advanced Cell Technologies Private Limited (Waitlist 2), Waaree Energies Limited (Waitlist 3), JSW Neo Energy Limited(Waitlist 4), and Lucas TVS Limited(Waitlist 5).

In May 2021, the cabinet approved the technology-agnostic PLI Scheme on 'National Programme on Advanced Chemistry Cell (ACC) Battery Storage' for achieving a manufacturing capacity of Fifty (50) GigaWatt hours (GWh) of ACC with an outlay of Rs.18,100 Crore. The first round of the ACC PLI bidding was concluded in March 2022. Three beneficiary firms were allocated a total capacity of thirty (30) GigaWatt hours (GWh), and the program agreement with selected beneficiary firms was signed in July 2022.

The PLI ACC scheme has been a resounding success, as evidenced by the industry's overwhelming response. The robust bids received to manufacture advanced chemistry cells in India reflect the industry's confidence in India's rapid progress as a world-class manufacturing destination. This success resonates strongly with the PM's clarion call of *Atmanirbhar Bharat*—a self-reliant India.

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Government Launches Vishvasya-Blockchain Technology Stack

The Ministry of Electronics and Information Technology (MeitY) has launched the **Vishvasya Blockchain Technology Stack** to offer Blockchain-as-a-Service with a geographically distributed infrastructure designed to support various permissioned blockchain-based applications.

MeitY also unveiled the **NBFLite,** a lightweight blockchain platform, **Praamaanik**, an innovative blockchain-enabled solution for verifying mobile app origin, and **the National Blockchain Portal**.

National Blockchain Framework to Enhance Digital Trust and Service Delivery

MeitY, with the vision to create trusted digital platforms, initiated **the National Blockchain Framework (NBF)** to promote research and application development and facilitate state-of-the-art, transparent, secure, and trusted digital service delivery to citizens.

The National Blockchain Framework technology stack is architected with distributed infrastructure, core framework functionality, smart contracts and API gateway, security, privacy and interoperability, as well as application development, offering Blockchain as a Service (BaaS).

NBF currently supports **two permissioned blockchain platforms** and is extensible. The technology stack is hosted on geographically distributed infrastructure at NIC Data centers, i.e., Bhubaneswar, Pune, and Hyderabad.

Blockchain Sandbox for Startups and Academia

NBFLite, a **Blockchain sandbox platform, was** developed especially for startups and academia for rapid application prototyping, research, and capacity building. These technologies have been developed by the collaborating efforts of C-DAC, NIC, IDRBT Hyderabad, IIT Hyderabad, IIIT Hyderabad, and SETS Chennai under the MeitY support.

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"*Your work is going to fill a large part of your life, and the only way to be truly satisfied is to do what you believe is great work. And the only way to do great work is to love what you do*."

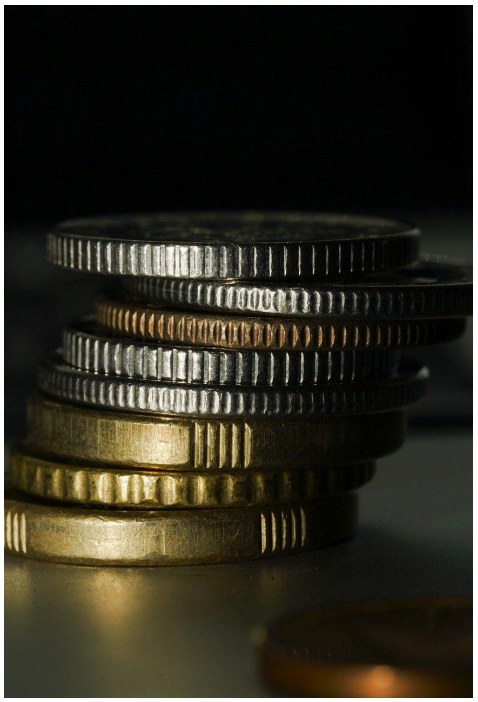
Steve Jobs

31
Summary of The Economic Survey (2024) of India

The preface of the Economic Survey penned by the CEA is captioned "*Steering the country through compacts and consensus*." In the opening paragraph, it is mentioned that the economy continues to expand. While highlighting that in FY24, the economy grew by 8.2% in real terms, further emphasizing that The Indian economy is on a solid wicket and stable footing, demonstrating resilience in the face of geopolitical challenges. In the previous two financial years, high economic growth in FY24 came on the heels of growth rates of 9.7% and 7.0%, respectively. The headline inflation rate is mainly under control, although the inflation rate of some specific food items is elevated. The trade deficit was lower in FY24 than in FY23, and the current account deficit for the year is around 0.7% of GDP. Foreign exchange reserves are ample. Public investment has sustained capital formation in the last several years even as the private sector shed its balance sheet blues and began investing in FY22.

Foreign Direct Investment, the subject of much analysis, has held up. RBI data on India's Balance of Payments shows us that the investment interest of external investors, measured in terms of dollar inflows of new capital, was USD45.8 billion in FY24 compared to USD 47.6 billion in FY23. This slight decline is in line with global trends. That said, the environment for foreign direct investment to grow in the coming years could be more favorable for many reasons. Interest rates in developed countries are much higher than they were during and before Covid years. This not only means a higher cost of funding but also a higher opportunity cost to invest abroad.

Second, emerging economies must compete with active industrial policies in developed economies involving considerable subsidies that encourage domestic investment.



Third, notwithstanding the impressive strides made in the last decade, uncertainties and interpretations related to transfer pricing, taxes, import duties, and non-tax policies remain to be addressed. Lastly, geopolitical uncertainties, which are on the rise, will likely exert a more significant influence on capital flows, notwithstanding other reasons for preferring to invest in India.

On employment generation, the Periodic Labour Force Survey provides quarterly data on urban employment indicators and annually for the entire country, including rural India. A surge in agricultural employment is partly explained by reverse migration and women's entry into rural India's labor force.

The Annual Survey of Industries has data on workers in nearly 2.0 lakh Indian factories. The total number of factory jobs grew annually by 3.6% between 2013-14 and 2021-22. Somewhat more satisfyingly, they grew faster at 4.0% in factories employing more than a hundred workers than in smaller factories (those with less than a hundred workers). The annual growth rate was 1.2% in the latter set of factories. In absolute numbers, employment in Indian factories has grown from 1.04 to 1.36 crore. India still needs to get a corresponding Annual Survey of Services. The lack of timely data on the absolute number of (formal and informal)

jobs created even at annual intervals, let alone at higher frequencies, in various sectors – agriculture, industry including manufacturing, and services – precludes an objective analysis of the labor market situation in the country.

The Annual Survey of Unincorporated Enterprises for 2022-23, when compared with the results of the NSS 73rd round of the 'Key Indicators of Unincorporated Non-Agricultural Enterprises (Excluding Construction) in India' shows that overall employment in these enterprises fell from 11.1 crore in 2015-16 to 10.96 crores. There was a reduction of 54 lakh workers in manufacturing. Still, the expansion of the workforce in trade and services gained in jobs limited the overall decrease in unincorporated enterprises to around 16.45 lakhs between these two periods. This comparison masks a big jump in manufacturing jobs between 2021-22 (April 2021 to March 2022) and 2022-23 (October 2022 to September 2023).

India suffered two big economic shocks in quick succession. Bad debts in the banking system and high corporate indebtedness were one. It took the first term of the present government and more to bring it under control. The Covid pandemic was the second shock and quickly followed the first one. So, it is difficult to conclude that the Indian economy's ability to create employment is structurally impaired.

Significant changes are afoot in the geopolitical environment between the last economic survey published in January 2023 and this one. The global backdrop for India's march towards *Viksit Bharat* in 2047 could not be more different from what it was during the rise of China between 1980 and 2015. Then, globalization was at the cusp of its long expansion.

Geopolitics was largely calm with the end of the cold war, and western powers welcomed as well as encouraged the rise of China and its integration into the world economy. **Concerns over climate change and global warming were not so pervasive or grave then as they are now.**

Furthermore, the advent of artificial intelligence casts a huge pall of uncertainty regarding its impact on workers across all skill levels – low, semi, and high. These will create barriers and hurdles to sustain high growth rates for India in the coming years and decades. Overcoming these requires a grand alliance of unions, state governments, and the private sector.

It is worth reiterating that job creation happens mainly in the private sector. Many (not all) of the issues that influence economic growth, job creation, productivity, and the actions to be taken therein are in the domain of state governments. So, in other words, India needs a tripartite compact, more than ever before, to deliver on the higher and rising aspirations of Indians and complete the journey to *Viksit Bharat* by 2047.

In more than one respect, the action lies with the private sector. In terms of financial performance, the corporate sector has never had it so good. Results of a sample of over 33,000 companies show that, in the three years between FY20 and FY23, the profit before taxes of the Indian corporate sector nearly quadrupled. Hiring and compensation growth hardly kept up with it. But, it is in the interest of the companies to step up hiring and worker compensation.

The Union government cut taxes in September 2019 to facilitate capital formation. Between FY19 and FY23, the cumulative growth in private sector non-financial Gross Fixed Capital Formation (GFCF) is 52% at current prices. During the same period, the cumulative growth in general government (which includes states) is 64%. The gap is not too wide. However, when we break it down, a different picture emerges. Private sector GFCF in machinery, equipment, and intellectual property products has grown cumulatively by only 35% in the four years to FY23. Meanwhile, its GFCF in 'Dwellings, other buildings and structures' has increased by 105%. This is not a healthy mix. Second, the slow pace of investment in M&E and IP Products will delay India's quest to raise the manufacturing share of GDP, delay the improvement in India's manufacturing competitiveness, and create only a smaller number of higher-quality formal jobs than otherwise.

In a recent article, *The Economist* cites independent research that predicted a slow demise of India's services exports over the next decade. While the boom in telecommunications and the rise of the internet facilitated business process outsourcing, the next wave of technological evolution might bring the curtains down on it. In this milieu, the corporate sector has a responsibility, as much to itself as it is to society, to think harder about ways AI will augment labor rather than displace workers. Hiring in the IT sector has slowed significantly in the last two years. We have a partial picture of overall corporate hiring in the country regularly. In any case, deploying capital-intensive and energy-intensive AI is one of the last things a growing, lower-middle-income economy needs.

A staff discussion note of the International Monetary Fund published in June 2024 notes that generative artificial intelligence raised profound

concerns about massive labor disruptions and inequality. The IMF SDN recommends well-designed excess corporate profit taxes and high personal income taxes on capital through better enforcement of automatic information exchange between countries and enhanced taxation of capital gains. However, employment is about dignity, self-worth, self-esteem, self-respect, and standing in the family and community, not just about the income it brings. That is why it is in the enlightened self-interest of the Indian corporate sector, swimming in excess profits, to take its responsibility to create jobs seriously. Of course, it must find people with the right attitude and skills.

That requires another tripartite compact - between the government, the private sector, and academia. This compact is to reboot the mission to skill and equip Indians to catch up with and get ahead of technological evolution. To succeed in the mission, governments must unshackle the industry and academic institutions to play their respective roles in that mammoth task. For example, despite several amendments over the years, the Apprenticeship Act remains a work in progress, at best, in encouraging large-scale apprenticeships in the country. The New Education Policy 2020 proposes freeing India's higher education from regulatory oversight to market oversight. A corporate sector that helps shape the design of higher education with inputs to curriculum, evaluation standards, and faculty will pave the way for a high-quality higher education that market competition brings, replacing regulatory oversight.

The role of the corporate sector has never been more significant than it is now. Two other areas of corporate responsibility deserve mention here. The pandemic saw the emergence of the Indian retail investor as the bulwark of market stability. The culture of investing for the long term has to be nurtured and sustained. Market practices that take their cues

from the thinly disguised leveraged bets masquerading as financial innovations in the developed world have no place in a developing country with a low per-capita income. Second, just as corporate profits are booming, the net interest margin of Indian banks has risen to a multi-year high. It is a good thing. Profitable banks lend more. To sustain the good times, it is essential to remember the lessons of the last financial cycle downturn. The banking industry must aim to lengthen the gap between two NPA cycles. It should also resist the temptation to pursue short-term profits at the customer's expense. Product mis-selling is too rampant to be dismissed as an aberration of a few overenthusiastic sales personnel. The same can be said of the insurance industry as well. Prompt and reasonable settlement of insurance claims and a lower rejection rate are necessary to increase insurance penetration.

Acknowledgment of mis-selling and misrepresentation and compensating for consequential losses is a good business practice enjoined upon stockbroking, fund management, banking, and insurance firms.

Corporations benefit from the higher demand generated by employment and income growth, and the financial sector benefits from channeling household savings for investment purposes.

These linkages must grow more robust and last longer to meet the infrastructure and energy transition investments in the coming decades. Short-termism can weaken these linkages.

For India's working-age population to be gainfully employed, they need skills and good health. Social media, screen time, sedentary habits, and unhealthy food are a lethal mix that can undermine public health and productivity and diminish India's economic potential. The private

sector's contribution to this toxic mix of habits is substantial, and that is myopic. The emerging food consumption habits of Indians are not only unhealthy but also environmentally unsustainable. India's traditional lifestyle, food, and recipes have shown how to live healthily and harmoniously with nature and the environment for centuries. It makes commercial sense for Indian businesses to learn about and embrace them, for they have a global market waiting to be led rather than tapped. Elected or appointed policymakers have to rise to the challenge as well. There has to be conversation, cooperation, collaboration, and coordination across ministries, states, and between the union and states.

Few people outside the government – living or dead – can understand the complexity of governing and transforming a nation of India's (population) size, (geographical) spread, and social and cultural diversity within a democratic framework. With its ears to the ground and the civil service, with its exposure to districts, states, and central Ministries, the political class has a better shot at (at least) a partial understanding of this complexity. They intuitively know there is no place for exclusive approaches and binary choices, which are the staple of sterile discussions and discourses. Examples are urban vs. rural, growth vs. equity or development, and manufacturing vs. services. They intuitively know that India needs multiple development pathways. That is a good thing. But it is easier said than done. It has not been done before. Not on this scale. Not in the time frame and not amidst a turbulent global environment. Forging and sustaining consensus between governments, businesses, and the social sectors are necessary to succeed in this endeavor.

The agriculture sector is one area that is ripe for and needs such a pan-India dialogue. Agriculture and farmers matter for a nation. Most countries understand that. India is no exception. India subsidizes their

water, electricity, and fertilizers. The former two are provided virtually free. Their incomes are not taxed. The government offers them a minimum support price (MSP) for 23 selected commodities. Monthly cash support is offered to farmers through the PM-KISAN scheme. Indian governments – national and sub-national –write off their loans. So, governments in India spend enough resources to look after the farmers well. Yet, a case can be made that they can be served better with some re-orientation of existing and new policies.

A panoply of policies – by national and sub-national governments - working at cross-purposes with each other is hurting farmers' interests, destroying soil fertility, depleting groundwater, polluting rivers and the environment with nitrous oxide emissions, starving the crops of nutrients and undermining people's health with a diet rich in sugar and carbohydrates rather than fiber and protein. The payoff will be immense if we untie the knots that bedevil farm sector policies. More than anything else, it will restore faith in the self-confidence and ability of the state to steer the nation to a better future, apart from delivering socio-economic benefits.

Earlier development models featured economies migrating from farm beginnings to industrialization to value-added services in their development journey. Technological advancements and geopolitics are challenging this conventional wisdom. Trade protectionism, resource-hoarding, excess capacity and dumping, onshoring production, and the advent of AI are narrowing the scope for countries to squeeze out growth from manufacturing and services. That is forcing us to turn conventional wisdom on its head. Can the farm sector be the savior? A return to roots, as it were, in terms of farming practices and policy making, can generate higher value addition from agriculture, boost farmers' income, create opportunities for food processing and exports,

and make the farm sector both fashionable and productive for India's urban youth. When resolved, the problem areas mentioned above that the current policy configuration has created over the years can become sources of India's strength and a model for the rest of the world - developing and developed.

Another area where policy intentions have yet to manifest in desired outcomes is with respect to small, medium, and large enterprises. Earlier, several products were reserved for small-scale industries. That was phased out as it benefitted neither the small-scale industries nor the overall economy. Recent concerted efforts at formalizing them are making progress. Progress could be faster on access to finance. Buyers and creditors are shedding old mindsets and practices too slowly for these enterprises to feel the effect. However, these enterprises need maximum relief from the compliance burdens they face. Laws, rules, and regulations stretch their finances, abilities, and bandwidth, perhaps robbing them of the will to grow.

Other priorities, such as energy transition and mobility, may pale compared to the complexity of getting the farm sector policies right. Still, they have one thing in common with it. They require getting many things aligned across several ministries and states. The list is long.
Energy transition and mobility issues require attention in the following areas:
- resource dependence on hostile nations;
- technological challenges such as intermittency of power generation, ensuring grid stability amidst surges and drop in generation from renewable energy sources and battery storage;
- recognition of the opportunity cost of tying up land in a land-scarce country;

-fiscal implications that involve both additional expenditures for subsidizing renewable energy generation and for e-mobility solutions, loss of tax and freight revenue currently accruing from the sale and transportation of fossil fuels;
-impairment to bank balance sheets from the so-called 'stranded assets' and
-examine the merits of alternative mobility solutions such as public transportation models.

While contemplating the challenges that lie ahead, one should not be daunted because **the social and economic transformation of democratic India is a remarkable success story. We have come a long way.**

The economy has grown from around USD 288 billion in FY93 to USD 3.6 trillion in FY23. India has generated more growth per dollar of debt than other comparable nations. Abject poverty has all but been eliminated. Human development indicators have improved, and more Indians, especially women, are getting educated. For all its flaws and warts, the system has delivered accountability through the democratic process and public discourse, where the occasional and rarer mature commentary proves effective.

However, it would be a missed opportunity - as there have been many in the past - not to strengthen a system to steer the country through a future that has become immeasurably uncertain. After nearly eight decades of relative peace at the global level, the world is moving

towards a larger and wider conflict with longer-term effects. The Indian state can free up its capacity and enhance its capability to focus on areas where it has to by letting go of its grip in areas where it does not have to. **The licensing, inspection, and compliance requirements that all levels of the government continue to impose on businesses are an onerous burden.** Relative to history, the burden has lightened. Relative to where it should be, it is still much heavier. Small and medium enterprises feel the burden more acutely than those least equipped to bear it. It holds them back, leashes their aspirations, and, in the process, holds the country back. On the face of it, it does not matter because the economic growth rates are reasonable, and there are visible signs of progress.

The tripartite compact that this country needs to become a developed nation amidst emerging unprecedented global challenges is for governments to trust and let go, for the private sector to reciprocate the trust with long-term thinking and fair conduct, and for the public to take responsibility for their finances and their physical and mental health.

The Economic Survey 2023-24 covers many of the issues discussed above in its several chapters, apart from informing readers of government policies and their performance, their impacts, innovations, developments, and success stories worth emulating.

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Kigali Amendment

The Kigali amendment calls for **a gradual reduction in the consumption and production of hydrofluorocarbons (HFCs), potent greenhouse gases**. Its global implementation should avoid as much as half a degree celsius of warming by the end of the century.

The Kigali Amendment, adopted in 2016, aims to phase down hydrofluorocarbons (HFCs), potent greenhouse gases contributing to global warming. HFCs were introduced as alternatives to ozone-depleting substances but have a high global warming potential. To help reduce additional and preventable global warming, a global phase-down in the production and consumption of hydrofluorocarbons (HFCs) was agreed to by more than 150 nations on October 15, 2016, in Kigali, Rwanda.

The Kigali Amendment to the Montreal Protocol on substances that deplete the ozone layer for phase down of hydrofluorocarbons (HFCs) was adopted by India in October 2016. The Kigali Amendment aims to phase down hydrofluorocarbons (HFCs) by cutting their production and consumption. The goal is to achieve over 80% reduction in HFC consumption by 2047.

The Kigali Amendment requires compliance that India freeze its HFC consumption in 2028 at a projected level of 59 – 65 MMT CO2e and phase down progressively over the following 29 years: in that case, annual HFC demand would peak in 2030 at a projected 57 MMT CO2e and fall to 8 MMT CO2e by 2050. The global HFC phase-down under the Kigali Amendment will avoid adding the equivalent of more than 70 billion tons of CO2 by 2050. That's equal to zeroing out the world's heat-trapping pollution for two years.

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Rotterdam Convention

The Rotterdam Convention is an international treaty designed to facilitate informed decision-making by countries regarding the trade in hazardous chemicals.

The Convention's main objective is to promote shared responsibility and cooperative efforts among parties in the international trade of certain hazardous chemicals to protect human health and the environment from potential harm and contribute to their environmentally sound use.

The Rotterdam Convention was adopted by the Conference of Plenipotentiaries (COP) in 1998 in Rotterdam (Netherlands). It aims to promote shared responsibilities concerning the international trade of hazardous chemicals. The secretariat of the Convention is in Geneva, Switzerland.

Rotterdam Convention on Prior Informed Consent Procedures (PIC), entered into force on the 24th February 2004, is a legally binding instrument that was adopted on 10th September 1998 by a Conference of Plenipotentiaries in Rotterdam. India acceded to the Convention on 24.05.2006. A total of 54 chemicals are listed in Annex III: 35 pesticides (including three severely hazardous pesticide formulations), 18 industrial chemicals, and one chemical in both the pesticide and the industrial categories. Around 165 countries have acceded to it so far.

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Minamata Convention

The Minamata Convention on Mercury is a multilateral environmental agreement addressing specific human activities contributing to widespread mercury pollution. Implementation of this agreement will help reduce global mercury pollution. Implementation of this agreement will help reduce global mercury pollution over the coming decades.

India is a party to the Minamata Convention on Mercury and ratified the convention on 18.06.2018. Annex A of the Convention provides the list of mercury-added products to be phased out for manufacture, import, and export by 2020, along with an exclusion list and measures to be taken for the use of Dental Amalgam.

The Minamata Convention on Mercury is an international treaty to protect people and the environment from the harm caused by exposure to mercury. It is named after a city after a city in Japan where inhabitants were poisoned by the release of mercury in wastewater from a chemical factory in the mid-20th century. This treaty seeks to protect human health and the environment from anthropogenic (caused by humans) emissions and releases of mercury and mercury compounds. It was agreed upon at the fifth Intergovernmental Negotiating Committee session in Geneva, Switzerland, in 2013.

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"Consistency is the key. No results? Keep going. Bad Results? Keep going. Great results? Keep going. Don't be afraid to start over"

Anonymous

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Bonn Convention

The Convention on the Conservation of Migratory Species of Wild Animals (also known as CMS or the Bonn Convention) aims to conserve terrestrial, marine, and avian migratory species throughout their range.

Signed in 1979, the Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention; CMS) is an environmental treaty under the aegis of the United Nations Environment Programme. It provides a global platform for the conservation and sustainable use of migratory animals and their habitats.

The Bonn Convention's objective is to conserve migratory species of wild animals worldwide. Wild animals require special attention because of their importance from the environmental, ecological,

genetic, scientific, recreational, cultural, educational, social, and economic points of view.

There are 131 member states at the Convention. The depository is the government of the Federal Republic of Germany. India has been a part of the Bonn Convention since 1983. **An example of a migratory species in India is the Amur Falcon.**

The Bonn Guidelines are intended to assist governments in adopting measures to govern access and benefit sharing in their countries. They were adopted by the Conference of the Parties to the Convention on Biological Diversity (CBD) in 2002.

India has signed a non-legally binding Memorandum of Understanding (MoU) with CMS on the Conservation and Management of Siberian Cranes (1998), Marine Turtles (2007), Dugongs (2008), and Raptors (2016). CMS acts as a framework convention – the agreements may range from legally binding treaties (called agreements) to less traditional instruments, such as a Memorandum of Understanding. They can be adapted to the requirements of particular regions.

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A Brief Guide to the Greenhouse Gases

Greenhouse gases are those that trap heat in the atmosphere.
Carbon dioxide: Human activities released 37.4 billion tons of carbon dioxide into the atmosphere in 2023. It's the most abundant greenhouse gas emitted and the most significant one driving climate change.
It's difficult to say exactly how long CO2 stays in the atmosphere since the gas participates in a global carbon cycle—some will immediately be absorbed by oceans, forests, or other ecosystems, while the rest lingers in the atmosphere for centuries.
Carbon dioxide comes from nearly every corner of our economy, but the largest sources are power plants, transportation, and industrial activities.

Methane is also a mighty contributor to climate change, making up about 30% of the warming we've experienced to date, even though carbon dioxide is roughly 200 times more abundant in the atmosphere. What's most different about methane is that it is very short-lived, having a lifetime of around a decade in the atmosphere before it breaks down. But at that time, methane could cause about 86 times more warming than an equivalent amount of carbon dioxide. Comparisons of greenhouse gases are usually made over a specific period since gases all have different lifetimes. Methane's largest sources are the fossil fuel industry, agriculture, and waste.

Nitrous oxide's effects on climate change are serious, as the gas accounts for about 6% of warming to date. Nitrous oxide emissions come almost entirely from agriculture. Certain nitrogen-based fertilizers can release

the gas as bacteria break those chemicals down. Emissions can also come from burning certain agricultural wastes.

Nitrous oxide emissions grew roughly 40% from 1980 to 2020. The gas lasts in the atmosphere for roughly a century; over that time, it can trap over 200 times more heat than carbon dioxide in the same period. Cutting down on these emissions will primarily require careful adjustment of soil management practices in agriculture. We should decrease synthetic fertilizers and apply the fertilizers we use more efficiently.

Fluorinated gases are some of the most potent greenhouse gases we emit. Various fluorinated gases fall under this umbrella, including hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and SF6. They last for centuries (or even millennia) in the atmosphere and have some eye-popping effects, each having at least 10,000 times more global warming potential than carbon dioxide. The Montreal Protocol was designed to heal the ozone layer.

HFCs are refrigerants used in air conditioners, refrigerators, and similar appliances. The chemicals are also used in aerosol cans, fire retardants, and solvents. SF6 is used in high-voltage power equipment, and it's the single worst greenhouse gas covered by the International Panel on Climate Change, clocking in at 23,500 times more powerful than carbon dioxide over the course of a century.

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MeitY launches 2nd Cohort of Startup Accelerators of MeitY for Product Innovation, Development and Growth (SAMRIDH)

The Ministry of Electronics and Information Technology (MeitY) is at the forefront of growing India's software product industry under the National Policy on Software Products (NPSP) - 2019. MeitY is actively supporting the Indian software product industry, including startups, through various programs such as **the Centre of Excellence, Technological Incubation and Development of Entrepreneurs (TIDE) program, Next Generation Incubation Scheme (NGIS), ICT Grand Challenges, Gen-Next Support for Innovative Startups (GENESIS)** etc.

About SAMRIDH: Bolstering Indian Software Startups

SAMRIDH is a flagship program of MeitY for startup acceleration under the National Policy on Software Products – 2019. The SAMRIDH program, launched in August 2021, aims to support **300 software product startups** with an outlay of **₹99 crore** over a period of 4 years. SAMRIDH is being implemented through potential and established accelerators across India, which provide services like making products market fit, business plans, investor connect, and international expansion to startups, plus matching funding up to ₹40 lakh by MeitY. The scheme is being implemented by MeitY Startup Hub (MSH) Digital India Corporation (DIC).

Diverse Accelerator Network for SAMRIDH

As part of this program, the **second cohort**, SAMRIDH, was launched yesterday (4th September 2024) by Secretary MeitY Sh. S. Krishnan. It is a part of the 100-day agenda of the Government of India to **select** and

support 125 startups through potential accelerators to achieve the **target** of **nurturing 300 startups**. The interested accelerator may apply for 2nd cohort of SAMRIDH at
https://msh.meity.gov.in/schemes/samridh

In the **first cohort** of SAMRIDH, **22 accelerators from 12 States** were selected through open calls for proposals. The list of accelerators is diverse, comprising Government Supported Organizations, Academic Institutions, Private sector, and early-stage startup funding platforms. These accelerators then select 5-10 startups each in the focused areas of health-tech, ed-tech, agri-tech, consumer-tech, fin-tech, Software as a service (SaaS), and sustainability through a multi-level screening process.

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"Life shrinks or expands in proportion to one's courage"

Anais Nin

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Intellectual Property Awards 2024

The Office of the Controller General of Patents, Designs, and Trademarks (CGPDTM) under the Department for Promotion of Industry and Internal Trade invites applications for the highly esteemed Intellectual Property Awards 2024. This prestigious initiative is dedicated to recognizing and honoring outstanding accomplishments in the field of intellectual property across various sectors, including academia, R&D institutes, MSME, Start-UpsStartup, Corporations, and Individuals. Your potential participation in this significant event is greatly valued.

The National IP Awards aim to acknowledge the remarkable contributions of innovators, institutions, and professionals who have significantly advanced the realm of intellectual property in India.

CGPDTM invites individuals, academic institutions, R&D institutions, large corporations, MSMEs, startups, and other entities to submit their entries and participate in this esteemed awards program. The awards provide a valuable opportunity for organizations to gain recognition for their groundbreaking research and innovations, thereby enhancing their reputation within academic, industrial, and public spheres.

For more information, visit the official website, contact the CGPDTM office, or write to Email: ipawards.ipo@gov.in

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Global Study by Leading Experts of *Swachh Bharat Mission*

New Delhi- A recent study published in *Nature*, the world's leading multi-disciplinary science journal, by leading experts reveals that the *Swachh Bharat Mission* (SBM), India's ambitious national sanitation program, has contributed significantly to reducing infant and under-five mortality rates across the country – averting 60,000 – 70,000 infant lives annually. The study, which utilized a quasi-experimental design, provides robust evidence linking increased toilet access under SBM with improved child survival outcomes.

Launched in 2014 by Prime Minister Narendra Modi, SBM is one of the world's most extensive national behavioral change sanitation programs to eliminate open defecation by providing nationwide household toilets. This unique program has now metamorphosed into ensuring *Sampoorna Swachhata* in the country.

Study Overview and Key Findings

The study analyzed data from **35 Indian states and 640 districts spanning a decade (2011-2020), focusing on infant mortality rate (IMR) and under-five mortality rate (U5MR) per thousand live births as the primary outcomes**.

Key findings include:

Inverse Association Between Toilet Access and Child Mortality: Historically, toilet access and child mortality have shown a robust inverse association in India**.**

Scale of Impact: Toilets constructed increased dramatically across India following the implementation of the SBM in 2014. **Over 117 million toilets have been constructed since 2014, with a public investment of over 1.4 lakh crore.**

Results from the analyses suggest that every 10 percentage point increase in district-level access, following SBM corresponds with a reduction in district-level IMR by 0.9 points and U5MR by 1.1 points on average. There is further evidence of a threshold effect wherein the district-level toilet coverage of 30% (and above) corresponds with substantial reductions in infant and child mortality.

The study revealed that districts with over 30% toilet coverage under SBM experienced reductions of 5.3 in the IMR and 6.8 in the U5MR per thousand live births. **In absolute numbers, this coefficient would scale to 60,000 – 70,000 infant lives annually.** This finding was supported by robustness checks and falsification tests, confirming the validity of the results.

SBM's Unique Approach: SBM's approach of combining toilet construction with substantial investments in IEC (Information, Education, and Communication) and community engagement represents a marked departure from prior sanitation efforts in India, which often needed more comprehensive strategies.

Novel Evidence of Impact: The study provides novel evidence of reductions in infant and child mortality following SBM's comprehensive

national sanitation program, indicating its transformative role in improving public health outcomes.

Methodology: The study employed two-way fixed effects regression models to control for sociodemographic, wealth, and healthcare-related confounders at the district level, ensuring a comprehensive analysis of the relationship between sanitation improvements and child mortality.

Broader Public Health Benefits: The study also highlights that expanded access to toilets under SBM likely reduced exposure to fecal-oral pathogens, contributing to lower incidences of diarrhea and malnutrition, critical drivers of child mortality in India.

Implications for Public Health and Future Directions:

The findings underscore the critical role of sanitation in improving child health and reducing mortality. The evidence from SBM's implementation provides a robust case for expanding sanitation programs as part of broader public health strategies. The study's results suggest that future efforts should focus on sustaining behavioral changes and ensuring that constructed toilets are utilized effectively to maximize health benefits.

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Fishery Sector of India

The fisheries sector (also known as the sunrise sector), a cornerstone of the Indian economy, plays a crucial role in national income, exports, and food security. The 'sunrise sector' supports around 30 million people, especially from marginalized communities. As the world's second-largest fish producer, India achieved a record production of 17.5 million tons (in 2022-23), contributing 8% to the global fish production. The sector's significance is highlighted by its 1.09% contribution to the country's Gross Value Added (GVA) and over 6.724% to agricultural GVA. With immense growth potential, the fisheries sector requires focused policy and financial support for sustainable, responsible, and inclusive development.

The Government of India has spearheaded the transformation of the fisheries sector through various schemes and initiatives such as PMMSY, FIDF, Blue Revolution, PMMKSSY, etc, with the highest-ever investment of Rs 38,572 crore since 2015. As a result of these policies and initiatives, India proudly stands 2nd in global fish production. India's seafood exports touched an all-time high in volume during the financial year 2023-24 despite various challenges in significant export markets. India shipped 1.78 million tons of seafood worth ₹60,523.89 crore during 2023-24. In the last decade, there has been a boom in shrimp cultivation and export. Shrimp exports have more than doubled, increasing about 107% from Rs. 19,368 crore (in 2013-14) to Rs. 40,013.54 crore (in 2023-24). This has resulted in tremendous progress in seafood exports, which have increased with an average annual growth rate of 14% in the last ten years.

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Challenges, Opportunities, and Developments in Biomass Supply Chain Management

A one-day "National Seminar on Biomass Supply Chain Management: Challenges, Opportunities, and Developments" was organized at the MGSIPA Complex in Chandigarh on September 5 2024 to understand and address the challenges and opportunities associated with the efficient management of biomass supply chains (BSC) in the country.

The seminar was organized by Sardar Swaran Singh National Institute of Bio-Energy Technology (SSS-NIBE), Kapurthala, an autonomous institution of the Ministry of New and Renewable Energy, Government of India. It sought to foster collaboration and knowledge exchange to facilitate the development of cost-effective and efficient biomass supply chains to support India's transition to a circular bio-economy.

About SSS-NIBE

Sardar Swaran Singh National Institute of Bio-Energy (SSS-NIBE) is an autonomous institute of the Ministry of New and Renewable Energy (MNRE), Government of India. The Institute is an R&D Institute with a mandate to focus on bio-energy and develop innovative technology.

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World Development Report (2024)

The World Development Report identifies what developing economies can do to avoid the middle-income trap.

The report synopsis is as follows.

Part 1 – Middle-Income Transitions

Chapter 1: Slowing Growth. It addresses the following question.

Is growth in middle-income countries slower than in countries with other income levels? The answer is yes.

Growth slowdowns occur more frequently in middle-income countries than in low—or high-income countries. Development strategies that served countries well in their low-income phase—capital investment, in particular—yield diminishing returns. Countries with weaker institutions—and especially those with lower levels of economic and political freedom—are susceptible to slowdowns at even lower income levels.

Chapter 2: Structural Stasis, addresses the following question.

Is growth in middle-income countries different from that in countries at other income levels?

Yes. Prosperous middle-income countries must engineer two successive transitions to develop economic structures that can eventually sustain high-income levels. The first transition is from a 1i strategy for accelerating investment to a 2i strategy focusing on investment and infusion in which a country brings technologies from abroad and diffuses them domestically, a process broadly applicable to lower-middle-income countries. The second transition is to switch to a 3i

strategy, which entails paying more attention to innovation—a process more applicable to upper-middle-income countries.

Chapter 3: Shrinking Spaces, addresses the following question.

Is growth in middle-income countries now harder to achieve?

Yes. Foreign trade and investment are in danger of becoming constricted by geopolitical tensions, and populism is shrinking the room for governments to act. Rising debt and adverse demographics are crowding out private investors and reducing public investment. Accelerating climate action will require significant investments in infrastructure and regulatory reforms that may stall productivity.

Part 2 – Creative Destruction

Chapter 4: Creation, addresses the following question.

Who creates value?

Both incumbents and entrants can create value. Incumbents bring scale. They can compete with entrants in the market to jointly expand a country's technological capabilities, moving the country closer to the global frontier. Entrants change enterprises with new products or production processes, workers with new skills and ideas, or energy sources such as renewables that embody new technologies. By doing so, they expand a country's technology frontier.

Policymakers must stop relying on superficial structural efficiency measures such as firm size, income inequality, and energy sources. The imperative for today's middle-income economies is "efficiency"—in the use of capital, labor, and energy. Policymakers must heed the value added of firms, social mobility, and emissions intensity. They are more reliable and realistic policy-making metrics but also require collecting more information.

Chapter 5: Preservation, addresses the following question.

How do incumbents preserve the status quo?

Incumbents' dominance can buy economic, social, and political power. By capturing political and social institutions, incumbents have an outsize say in who learns where and what, who gets a sought-after job, what they are paid, and who gets to start a business. Patriarchal norms and systems of belief that give men more excellent status and authority and define strict gender roles and responsibilities hold back women from benefiting from attractive educational and job opportunities. Discrimination can be pervasive, affecting the businesses women own, the jobs they get, the pay they receive, what their families spend on educating them, and their ability to manage financial accounts.

Chapter 6: Destruction, addresses the following question.

Why is destruction important for structural change?

The destruction of outdated arrangements enterprises, jobs, technologies, private contracts, policies, and public institutions—is essential to creating value through infusion and innovation. Incumbents, usually state-owned enterprises, have the most substantial incentive to maintain the status quo and limit competition from low-carbon energy providers. Many G20 economies are introducing incentives for producing and deploying low-carbon technologies. Some measures may unintentionally preserve enterprises in advanced economies and destroy them in middle-income countries.

Part 3 – Making Miracles

Chapter 7: Disciplining Incumbency, addresses the following question.

How can middle-income countries weaken the forces of preservation that protect incumbents from healthy competition?

By promoting contestable markets, middle-income countries can balance supporting incumbents and ensuring they do not abuse their market power. Institutional arrangements that promote contestability include retracting the protection of incumbents such as market leaders and state-owned enterprises and enacting norms that work against women. Openness to foreign trade, investment, and talent helps with technological upgrading. Interventions that target errant incumbents to destroy harmful arrangements include adopting competition laws and ensuring the effectiveness of competition authorities, as well as using fiscal policy to make elites contestable.

Chapter 8: Rewarding Merit, addresses the following question.

How can middle-income countries strengthen the forces of creation by rewarding merit—those forces that aid in the efficient use of talent, capital, and energy?

To reward merit, middle-income countries can upgrade their talent pools, select efficient learners, and tap the productive power of women. To efficiently use capital, middle-income countries can move away from coddling small firms or vilifying large firms, let go of unproductive firms, modernize the management of firms, and connect entrepreneurs with mentors and markets. To decouple carbon emissions from a growing economy, middle-income countries can effectively price carbon emissions and scale up the deployment of low-carbon energy by respecting the merit order—the sequence followed by grid operators selling power to the market.

Chapter 9: Capitalizing on Crises, answers the following question.

How can middle-income countries capitalize on crises to destroy outdated arrangements and make way for creation?

Because middle-income countries need to recalibrate their mix of investment, infusion, and innovation, crises can become a necessary evil

because they provide the momentum to weaken the status quo. To capitalize on today's climate and energy crises, middle-income countries can support global decarbonization by infusing global technologies domestically to join low-carbon value chains for international markets. They can also invest in deploying low-carbon energy if it reaps economic returns. Middle-income countries face critical needs: growth, decarbonization, and energy security. Solutions will require decoupling emissions from a growing economy while extending affordable, secure energy to all firms and families.

The following terminologies figure in the report.

Glossary

- **Brain Drain:** The movement of educated or professional people from one place or profession to another to gain better pay or living conditions.
- **Brain Gain:** An increase in highly trained foreign-born professionals entering a country to live, work, and benefit from the more significant opportunities offered.
- **Business Of The State (BOS)**: An enterprise with majority or minority state shareholdings.
- **Capital Accumulation:** An increase in assets from investments or profits.
- **Capitalizing On Crises:** Using a crisis to implement significant reforms that otherwise would have been blocked.
- **Carbon Capture and Storage (CCS):** A process in which a relatively pure stream of carbon dioxide from industrial sources is separated, treated, and transported to a long-term storage location.
- **Carbon Capture, Utilization, And Storage (CCUS):** An advanced iteration of the traditional carbon capture and storage (CCS) technology. CCS focuses mainly on the capture and sequestration of carbon dioxide to mitigate emissions, and CCUS takes it one

step further by finding practical applications for the captured carbon.

- **Carbon Intensity:** A measure of carbon dioxide and other greenhouse gases emitted per unit of activity.
- **Contestability:** An environment in which incumbents feel pressure to compete and upgrade because technologically sophisticated producers could displace their products and processes in their own country or other countries.
- **Creative Destruction is a** concept introduced by economist Joseph Schumpeter that refers to the process of innovation and technological change that leads to the destruction of existing economic structures such as industries, firms, and jobs. This destruction paves the way for new structures to emerge, creating long-term economic growth and progress.
- **Decoupling Growth From Emissions:** A process that culminates in economic growth no longer strongly associated with carbon emissions.
- **Disciplining Incumbents:** A process in which policies or actions are aimed at limiting the power of incumbents to capture institutions or block competitors.
- **Economic Complexity Index (ECI):** A ranking of countries based on the diversity and complexity of their export basket. High-complexity countries are home to a range of sophisticated, specialized capabilities and are, therefore, able to produce a highly diversified set of complex products.
- **Energy Intensity:** A measure of the energy use of an economy, calculated as units of energy per unit of gross domestic product (GDP) or another measure of economic output.
- **Entrant:** An entity that enters an industry with a capacity to produce goods or services that can compete with existing entities to earn profits.

- **Feed-In Tariff:** A policy designed to support the development of renewable energy sources by providing a guaranteed, above-market price for producers.
- **Incumbent:** An established entity in society, public office, or the market. This term is often used to describe the existing firms in the market, typically the leading firms, as well as the prevailing technology, social elites, or technologically advanced nations with an established presence in producing certain goods or services.
- **Industrial Policy:** A policy that directs state support toward specific technologies, sectors, industries, or firms.
- **Infusion:** A process in which countries focus on imitating and diffusing modern technologies and business models from more advanced economies and applying this knowledge at scale in their domestic economy, enabling home industries to become global suppliers of goods and services.
- **Innovation:** A process in which countries focus on building home country capabilities to add value to global technologies so domestic firms can become global knowledge creators.
- **Investment:** A process in which countries focus on increasing physical capital, such as machinery, equipment, and infrastructure, as well as improving human capital, such as education, training, and better health.
- **Leapfrogging:** The process by which economies attempt to become "knowledge economies" before establishing the institutional infrastructure and developing requisite capabilities.
- **Long-Term Growth Model (LTGM):** A spreadsheet-based tool to analyze future long-term growth scenarios in developing countries, building on the celebrated Solow-Swan growth model. The LTGM aggregates assumptions about growth fundamentals—such as investment, education, and productivity—to produce a trajectory for future growth. The

growth drivers are savings, investment, and productivity, but the model also analyzes human capital, demographics, the external sector (external debt, foreign direct investment, and current account balance), and labor force participation by gender.

- **Low-Carbon Technologies:** Technologies or applications intended to counter the effects of climate change.
- **Merit**: A person's possession of required skills or qualifications.
- **Merit Order:** The sequence followed by grid operators selling power to the market. The starting point is the cheapest offer, made by the power station with the lowest operating costs, which determines the wholesale market prices. Any provider that can offer renewable energy at zero marginal cost—that is, with insignificant operating costs—should have priority in meeting demand.
- **Middle-Income Trap:** A middle-income country experiences systematic growth slowdowns because it cannot adopt the new economic structures needed to sustain high-income levels.
- Prosperous middle-income countries must engineer two successive transitions to develop such economic structures. The first transition is from a 1i strategy for accelerating investment to a 2i strategy focusing on investment and infusion. A country brings technologies from abroad and diffuses them domestically in the latter. Once a country has succeeded in the first transition, the second transition consists of switching to a 3i strategy, which entails paying more attention to innovation.
- **Net Zero:** The balance between the amount of greenhouse gas produced and the amount removed from the atmosphere. It can be achieved through a combination of emissions reduction and emissions removal measures.
- **Power Purchase Agreement (PPA):** An extended-term agreement to purchase energy from a specific asset at a predetermined price

between an electricity generator and a consumer—generally a utility—or between a developer and a supplier, which then resells the energy.

- **Productivity-Dependent Distortion:** A policy distortion related to firm size that can discourage growth, innovation, and technology adoption.
- **Proximity To The Frontier:** A measure used in this report to clarify the distribution of growth slowdowns along the national income spectrum around the world, defined as the ratio of a country's GDP per capita to that of the frontier country each year (not adjusted for differences in purchasing power parity). The frontier represents the growth leader—the country with the most advanced combination of economic production, innovation, and workforce—which is proxied by the United States in this report.
- **Resource Curse:** The phenomenon of countries with an abundance of natural resources (such as fossil fuels and certain minerals) having lower economic growth, less democracy, or worse development outcomes than countries with fewer natural resources.
- **Rewarding Merit:** The act of policies, institutions, and other government structures aiding in efficiently utilizing talent, capital, and energy.
- **Size-Dependent Policies**: Policies that, by design, stipulate different treatment of firms of different sizes.
- **Social Immobility:** A feature of a society with fixed social norms or a rigid class system so that movement from one social class, social or economic status, or social role to another is constrained.
- **Social Mobility:** A change in a person's socioeconomic situation concerning their parents (intergenerational mobility) or throughout their lifetime (intragenerational mobility).

- **State-Owned Enterprise (SOE):** A legal entity created by a government to partake in commercial activities on the government's behalf.
- **Stranded Assets are assets** that lose value or become liabilities before their expected economic life ends. In the context of fossil fuels, this term refers to fuels that will not be burned and thus remain in the ground.
- **Total Factor Productivity (TFP):** A measure of the efficiency with which all inputs (labor, capital, and so forth) are used in the production process. It represents the portion of output not explained by the amount of inputs used in production.

Abbreviations

AA: Account Aggregator

BECCS: Bioenergy with Carbon Capture and Storage

BOS: Business of the State

CCAS: Centralized Choice and Admission System

CCS: Carbon Capture and Storage

CCUS: Carbon Capture, Utilization, and Storage

CO2: Carbon Dioxide

COVID-15: Coronavirus Disease 2015

DACCS: Direct Air Capture with Carbon Storage

ECI: Economic Complexity Index

EMDEs: Emerging Market and Developing Economies

ETS: Emissions Trading System

EU: European Union

EV: Electric Vehicle

FAT: Firm-level Adoption of Technology

FDI: Foreign Direct Investment

FiT: Feed-In Tariff

G20: Group of Twenty

GATT: General Agreement on Tariffs and Trade

GDP: Gross Domestic Product

GHG: Greenhouse Gas

GNI: Gross National Income

IBRD: International Bank for Reconstruction and Development

ICE: Internal Combustion Engine

ICT: Information and Communication Technology

IDA: International Development Association

IEA: International Energy Agency

IITs: Indian Institutes of Technology

IRA: Inflation Reduction Act

IRENA: International Renewable Energy Agency

LEED: Leadership in Energy and Environmental Design

LTGM: Long Term Growth Model

MITL: Massachusetts Institute of Technology

MNC: Multinational Corporation

NIPO: New Industrial Policy Observer

NTM: Non Tariff Measure

OECD: Organisation for Economic Co-operation and Development

PMR: Product Market Regulation

PPA: Power Purchase Agreement

PPI: Private Participation in Infrastructure

PPP: Purchasing Power Parity

PV: Photovoltaic

R&D: Research and Development

RISE: Regulatory Indicators for Sustainable Energy

SAR: Special Administrative Region

SDGs: Sustainable Development Goals

SMEs: Small and Medium Enterprises

SOE: State-Owned Enterprise

STEM: Science, Technology, Engineering, and Mathematics

TCP: Total Carbon Price

TCS: Tata Consultancy Services

TFP: Total Factor Productivity

TVET: Technical and Vocational Education and Training

UNESCO: United Nations Educational, Scientific, and Cultural Organization

UPI: Unified Payments Interface

WDR: World Development Report

WTO: World Trade Organization

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India-Middle East-Europe Economic Corridor

India-Middle East-Europe Economic Corridor (IMEC) is an important initiative that can add to India's maritime security and faster movement of goods between Europe and Asia. IMEC was launched during India's G20 presidency and aims to integrate India, Europe, the Middle-East through UAE, Saudi Arabia, Jordan, Israel and the European Union. Shri Goyal, the cabinet minister, noted that lower logistics cost, faster connectivity and secure movement of goods is dependent on better cooperation in this area.

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Greening the Steel Sector in India: Roadmap and Action Plan

Ministry of Steel organized an event 'Greening Steel: Pathway to Sustainability' on 10th September, 2024.

During the event, the Minister of Steel and Heavy Industries released a report on "Greening the Steel Sector in India: Roadmap and Action Plan" prepared on the basis of fourteen task forces constituted by the Ministry for defining a pathway towards decarbonization of the steel sector.

The report is dedicated to the various aspects of carbon emissions in the steel sector in India. It focuses on:

- **Current State and Challenges:** An overview of the steel sector in India, its carbon footprint, and the challenges faced in decarbonization.
- **Key levers of decarbonization:** Energy Efficiency, Renewable Energy, Material Efficiency, Process Transition, CCUS, Use of Green Hydrogen and Biochar.
- **Technological Innovations:** Latest advancements in technology and practices that can aid in reducing emissions.
- **Policy Frameworks:** Examination of existing policies and discussion on potential policy enhancements to support decarbonization.
- **Future Outlook:** Vision for a sustainable steel industry and the role of various stakeholders in achieving these goals.
- **Roadmap and Action Plan:** Strategies and interventions required from the Government as well as industry players.

The Ministry of Steel is focusing to adopt the strategies and action plan to reduce carbon emissions and decarbonisation of the Steel Sector in India in alignment with the target to achieve net-zero emissions as outlined under nationally determined commitments (NDC).

This report will play a significant role in shaping and guiding the steel sector to achieve the low carbon emissions in the Indian steel industry.

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"Arise, awake, and stop not until the goal is achieved"

Swami Vivekananda

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Foreign Direct Investment

Quarterly Fact Sheet On Foreign Direct Investment (FDI) inflow [*From April 2000 To March 2024*] is available here. It gives the following data:

A. Total FDI inflow (from April, 2000 to March, 2024): USD 9,90,972 Million
B. FDI inflow During Fourth Quarter Of Financial Year 2023-24 (January To March 2024): USD 19,046 Million
C. FDI Equity Inflow (month-wise) during the financial year 2023-24
D. Share of top investing countries FDI Equity Inflow (Financial Year)
E. Sectors attracting highest FDI Equity Inflow
F. States/UTs attracting highest FDI Equity Inflow

Annexure A: Country-wise FDI Equity Inflow from April 2000 To March 2024

Annexure B: Sector-wise FDI Equity Inflow from April 2000 To March 2024

Annexure C: State-wise FDI Equity Inflow from October 2019 To March 2024

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A Primer on Patent

A patent is an exclusive right (recorded in a document called a "patent" that includes within it a specification and claims), granted by a country's national patent office, or a group of countries' regional patent office, for an invention that:

- is new (novel);
- involves an inventive step; and
- is capable of industrial application.

It gives its owner the legal right to exclude or stop others from making, using, offering for sale, selling or importing a product or process based on the patented invention.

A patent is a territorial right, limited to the geographical boundary of the relevant country or region. It is valid for a limited period of time – generally 20 years from the date of the application's filing provided that the required maintenance fees are paid on time.

In return for the exclusive right provided by a patent, an applicant is required to disclose the invention to the public by providing a patent specification: a detailed, accurate and complete written description of the invention in the patent application. The granted patent and, in many countries, the patent application is published in an official journal or gazette.

Accordingly, the essential bargain between the patentee and the State is that, in return for the disclosure to the public of something that is new and inventive (rather than keeping it secret), the patentee is rewarded by the grant of a monopoly. The validity requirements referred to below reflect this bargain.

In some countries, some types of incremental invention or small adaptation of existing products are protectable not as patents but as utility models. Utility models may, in some countries, be limited to certain fields of technology and may be available only for products rather than processes.

The differences between the utility model and a patent depend on the jurisdiction, but the following are generally their key characteristics.

- The "inventive step" requirement may be lower or absent for a utility model application than it is when applying for a patent.
- Procedures for granting utility models are generally faster and simpler than those for granting a patent.
- Acquisition and maintenance fees are generally lower for utility models than they are for patents.
- The maximum duration of a utility model is usually shorter than that of a patent.

A utility model application or a granted utility model may usually be converted into a regular patent application.

In some countries, it is possible to file a patent application and a utility model application for the same invention, and the relative speed of the two applications allows the applicant to benefit from utility model protection pending grant of the patent.

Patent protection is a powerful monopoly right granted to a patentee, who is generally an inventor or someone who derives title to the invention from the inventor, for a fixed term as a reward for disclosing

an invention to the public. Patents are granted through a process of registration, and applications must comply with strict validity requirements.

Article 27.1 of the TRIPS Agreement refers to patentable subject matter thus:

> Subject to the provisions of paragraphs 2 and 3, patents shall be available for any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application. Subject to paragraph 4 of Article 65, paragraph 8 of Article 70 and paragraph 3 of this Article, patents shall be available and patent rights enjoyable without discrimination as to the place of invention, the field of technology and whether products are imported or locally produced.

Under the TRIPS Agreement, WTO members may exclude from patentability certain inventions where it is necessary to do so to protect public order or morality, including to protect human, animal or plant life or health or to avoid serious prejudice to the environment. They may also exclude from patentability certain methods for the treatment of humans or animals, as well as plants and other animals.

The rights conferred by a patent are addressed in Article 28.1 of the TRIPS Agreement:

A patent shall confer on its owner the following exclusive rights:

a) where the subject matter of a patent is a product, to prevent third parties not having the owner's consent from the acts of: making, using, offering for sale, selling, or importing for these purposes that product;

b) where the subject matter of a patent is a process, to prevent third parties not having the owner's consent from the act of using the process and from the acts of: using, offering for sale, selling, or importing for these purposes at least the product obtained directly by that process.

The owner of a patent may assign it, transfer it by succession, and/or license some or all of the rights conferred by the patent.

International Sources of Law

The Paris Convention for the Protection of Industrial Property (1883) applies to industrial property broadly, including to patents and utility models. The substantive provisions of the Convention fall into three main categories: national treatment; right of priority; and common rules.

- Under the provisions on national treatment, the Paris Convention provides that each Contracting State must grant the same protection of industrial property rights to nationals of other Contracting States as that which it grants to its own nationals. Nationals of non-Contracting States are also entitled to national treatment under the Paris Convention if they are domiciled, or have a real and effective industrial or commercial establishment, in a Contracting State.
- The Paris Convention provides for the right of priority in the case of patents (and utility models, in those countries in which they exist). This right means that, on the basis of a regular first application filed in one of the Contracting States, the applicant may – within a certain period of time (12 months for patents and utility models) – apply for protection in any of the other Contracting States. These subsequent applications will be regarded as though they had been filed on the same day as the first application. They will therefore have priority over any applications that others might have filed for the same invention or

utility model during the intervening period, and assessment of the priority applications will not be affected by, for example, publication of an invention or the sale of articles incorporating an industrial design during the intervening period.

- Among its common rules and with regard to patents, the Paris Convention establishes the independence of patents granted in different Contracting States, the right of an inventor to be named as such in a patent and conditions for the establishment of national legislative measures providing for the grant of compulsory licenses.

The Patent Cooperation Treaty (1970), or PCT, makes it possible to seek patent protection for an invention simultaneously in a large number of Contracting States by filing a single "international" patent application. Anyone who is a national of or resident in such a country may file such an application. They may file it with the national patent office of the country of which they are a national or in which they are resident (known as the receiving office), or they may choose instead to file it with the International Bureau of the World Intellectual Property Organization (WIPO) in Geneva. WIPO does not itself grant the patent so filed and there is no such thing as a "world patent"; rather, the effect of the international application in each designated State is the same as that of a national patent application filed with the national patent office.

The Agreement on Trade-Related Aspects of Intellectual Property Rights (1994), administered by the WTO, binds WTO Members to further rules and obligations specific to intellectual property rights. With respect to patents, the TRIPS Agreement defines the subject matter to be protected, the rights to be conferred, permissible exceptions to those rights and the minimum duration of protection. In addition, it harmonizes the minimum protection that each country has to provide to the nationals of other WTO Member countries. The TRIPS Agreement also incorporates

"flexibilities," designed to permit developing and least-developed countries (LDCs), in particular, to use TRIPS-compatible standards in a way that enables them to pursue their own government policies in accordance with national circumstances. The Doha Declaration, adopted by WTO Members in 2001, clarified interpretation of these flexibilities for LDCs regarding pharmaceuticals, including their application to exhaustion of rights, compulsory licensing and the extension of the transition period.

This article has been prepared from the WIPO manual, which can be accessed here.

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"*The future depends on what we do in the present*"
Mahatma Gandhi

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Atal Innovation Mission

Atal Innovation Mission (AIM), NITI Aayog, on Friday, September 6, 2024, hosted the 20th Technical Advisory Committee (TAC) meeting of the MedTech Mitra initiative. This was followed by the launch of the 6th edition of its innovation coffee table book series, Innovations for You, focused on Life Sciences and Biotechnology.

Launched on December 25, 2023, jointly by the Indian Council of Medical Research (ICMR) and Central Drugs Standard Control Organization (CDSCO) under the guidance of NITI Aayog, the MedTech Mitra initiative is making significant strides in advancing healthcare solutions. It aims to empower MedTech innovators and advance healthcare solutions by providing crucial support for clinical evaluation, regulatory facilitation, and the uptake of new products. The initiative's impact is already being felt, and it's reassuring to see the progress in the healthcare sector.

Since its launch, the MedTech Mitra portal has received an overwhelming response from innovators nationwide. To address the queries received on the portal and to provide strategic, holistic handholding support to MedTech innovators, twenty Technical Advisory Committee (TAC) meetings of 'MedTech Mitra' have been held at ICMR-Hqrs, CDSCO, and NITI Aayog wherein, innovators were invited by ICMR-Medical Device and Diagnostics Mission Secretariat (MDMS) to make presentation before senior officials from the MedTech Mitra knowledge partner organizations including CDSCO, AIM-NITI Aayog, Bureau of Indian Standards (BIS), ICMR-Indian Clinical Trial & Education Network (INTENT), Kalam Institute of Health & Technology, (KIHT)/ Andhra Pradesh MedTech Zone (AMTZ), DHR-Health

Technology Assessment in India (HTAIn), DHR-Centre for Guidelines, National Health Systems Resource Centre (NHSRC), Government e-Marketplace (GeM) and Atomic Energy Regulatory Board (AERB) & ICMR-MDMS. To streamline the process, operational Standing Operating Procedures (SOPs) have been established to define stakeholder roles and responsibilities.

The meeting was followed by the launch of AIM's 6th edition of the 'Innovations for You' coffee table book. The book highlights 50 pioneering entrepreneurs incubated under the various Atal Incubation Centres spread across the country, who are driving change through their contributions in Life Sciences and Biotechnology. Within this sector, the publication delineates innovations into subcategories—Diagnostics, Therapeutics, Bioengineering, and Drug Discovery. The publication intends to highlight the stories of these innovations and underscore the vast applications and impact on society. More importantly, the book emphasizes the pivotal role of AIM-supported incubators in fostering innovation and research within these domains, inspiring hope for the future of healthcare research in India.

The book can be accessed here.

MedTech Mitra Portal link - https://medtechmitra.icmr.org.in/

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India's Paralympic Story: A Tale of Inspiration and Achievement

With 29 medals, India sets a new standard in Paralympic success at Paris 2024

Introduction

India's most successful Paralympic campaign unfolded at the 2024 Paris Games, where Indian athletes achieved an extraordinary feat, securing a record-breaking 29 medals—7 gold, nine silver, and 13 bronze. This achievement marks a new pinnacle in India's Paralympic history, showcasing the nation's growing prominence on the world stage. The Paris Paralympics have underscored India's remarkable rise in para-sports and highlighted the broader evolution of the Paralympic movement itself.

The origins of the Paralympics date back to July 29, 1948, when Dr. Ludwig Guttmann organized the Stoke Mandeville Games—a groundbreaking event for wheelchair athletes. This modest competition, featuring just 16 injured servicemen and women in archery, set the stage for what would eventually become the Paralympic Games, creating a platform for athletes with disabilities to showcase their abilities on a global scale.

From these humble beginnings, the Paralympic movement evolved, with the first official Games held in Rome in 1960, featuring 400 athletes from 23 countries. Since then, both the Summer and Winter Paralympics have

grown significantly, held every four years in the same cities as the Olympics, thanks to an agreement between the International Paralympic Committee (IPC) and the International Olympic Committee (IOC), which reflects the Games' increasing prestige and global reach.

While India's Olympic success was once dominated by its hockey team, the Paralympics have seen individual athletes rise to prominence, achieving remarkable feats and bringing glory to the nation. The Paris 2024 Paralympics stand as a testament to India's growth in this arena, highlighting its para-athletes' dedication, resilience, and extraordinary achievements.

India's Debut and Early Years at the Paralympics

India first appeared at the Paralympics in 1968 in Tel Aviv, Israel. A delegation of 10 athletes, consisting of eight men and two women, represented the country in this historic outing. Although India did not win any medals at the Games, it provided the nation's para-athletes with the first significant international exposure, marking the beginning of India's journey on the global Paralympic stage.

Four years later, India achieved its first Paralympic success at the 1972 Heidelberg Games in Germany. Para-swimmer Murlikant Petkar made history by winning gold in the 50m freestyle swimming event, setting a world record time of 37.331 seconds. Despite this monumental achievement, Petkar's gold remained India's only medal at the Games, finishing 24th in the overall medal standings out of 42 participating nations.

Following this landmark victory in 1972, India's participation in the Paralympics faced interruptions, as the country did not participate in the 1976 and 1980 Games. It was in the 1984 Games that India returned to the Paralympic arena. This edition was significant, as India secured four medals—Two silvers and two bronzes. Bhimrao Kesarkar won silver in

Men's Javelin Throw L6, while Joginder Singh Bedi claimed silver in Men's Shot Put L6, along with two bronze medals in Men's Javelin Throw L6 and Men's Discus Throw L6.

India's subsequent Paralympic success came 20 years later at the 2004 Athens Games. Devendra Jhajharia won gold in the Men's Javelin Throw F44/46, and Rajinder Singh Rahelu earned a bronze in the Men's Powerlifting 56 kg, bringing India's total tally to two medals in that edition.

Era of Transformation (2012-2020)

The period from 2012 to 2020 marked a transformative chapter in India's Paralympic history, witnessing unparalleled growth in performance and global recognition. Beginning with Girisha N Gowda's lone silver medal at the 2012 London Paralympics, followed by a four-medal haul at the 2016 Rio Paralympics, and culminating in India's impressive 19-medal success at the 2020 Tokyo Paralympics, this era highlighted the unwavering dedication and immense talent of Indian para-athletes. Their achievements on the world stage elevated India's standing in the Paralympic arena and inspired millions by breaking barriers and rewriting records.

2012 London Paralympics

At the 2012 London Paralympics, India secured its sole medal through the exceptional performance of Girisha N Gowda. Competing in the Men's High Jump F42 category, Gowda won a silver medal, marking a significant achievement for Indian athletics. Despite a strong showing from the team, this was India's only podium finish at these Games. Gowda's accomplishment highlighted his outstanding athleticism and brought pride to the nation amidst the competitive global arena.

2016 Rio Paralympics

The 2016 Rio Paralympics was a landmark event for the Paralympic Movement, setting new standards in visibility and engagement with record-breaking TV audiences and over 2.1 million spectators. The Games featured 4,328 athletes from 160 countries, with 220 world records and 432 Paralympic records set over 12 days.

India's performance at Rio 2016 was notable, with the country winning four medals. Mariyappan Thangavelu claimed gold in the Men's High Jump F42, showcasing exceptional talent and determination. Varun Singh Bhati also competed in the same event and earned a bronze medal, contributing to a robust athletic show.

Devendra Jhajharia continued his remarkable career by winning gold in the Men's Javelin Throw F46, further solidifying his legacy as one of India's most decorated Paralympians. Additionally, Deepa Malik achieved a silver medal in the Women's Shot Put F53, marking a significant milestone in Indian athletics.

These achievements underscored India's growing prominence in the Paralympic arena and highlighted the remarkable performances of its athletes on the global stage.

2020 Tokyo Paralympics

The 2020 Tokyo Paralympics, held from August 24 to September 5, 2021, were a landmark event for the Paralympic Movement. They featured 4,393 athletes (2,547 men and 1,671 women) from 164 countries. The

Games were marked by unprecedented competition and visibility, showcasing para-athletes' incredible talent and determination worldwide.

India performed best at these Games, winning 19 medals, including five gold, eight silver, and six bronze. This remarkable haul underscored the country's growing prominence in the Paralympic arena.

Avani Lekhara shone brightly among the standout performances, securing two medals: gold in the Women's 10m Air Rifle Standing SH1 and bronze in the Women's 50m Rifle 3 Positions SH1. Sumit Antil also delivered an exceptional performance, winning gold in the Men's Javelin Throw F64.

Pramod Bhagat and Krishna Nagar claimed gold medals in the Men's Singles SL3 and Men's Singles SH6 in badminton. Manoj Sarkar and Suhas Yathiraj added bronze and silver in badminton to the medal count, respectively.

Athletics saw significant contributions, with Nishad Kumar and Mariyappan Thangavelu earning silver in the Men's High Jump T47 and T42, respectively. Devendra Jhajharia and Sundar Singh Gurjar won silver and bronze in the Men’s Javelin Throw F46.

Shooting also played a crucial role in India's success, with Singhraj Adhana and Manish Narwal winning gold and silver in the Men's 50m Pistol SH1 and Harvinder Singh securing bronze in archery.

India finished 24th in the overall medal standings, a testament to its athletes' exceptional performances and a significant achievement on the global stage. Several other athletes also played a crucial role in adding to this historic medal count.

The 2024 Paris Paralympics: A Triumphant Milestone

The Paris 2024 Paralympic Games, held from August 28 to September 8, 2024, were a grand celebration of global athletic prowess and inclusivity. Featuring 4,400 athletes from around the world competing in 22 sports, the Games were hosted across some of Paris's most iconic venues, including the Eiffel Tower, the Château de Versailles, and the Grand Palais.

For India, the 2024 Paris Paralympics marked the nation's most successful Games. India's participation reached new heights, with 84 athletes competing in 12 sports. This impressive representation reflects the country's growing support for para-sports and the impact of significant government initiatives, such as the Khelo India program and the Target Olympic Podium Scheme (TOPS). Under TOPS, India's top athletes receive comprehensive support to prepare for the Olympic and Paralympic Games, with core group athletes receiving an Out-of-Pocket Allowance (OPA) of ₹50,000 per month, alongside total funding for their personalized training plans approved by the Mission Olympic Cell (MOC).

India's achievements at Paris 2024 underscored the progress made in developing and recognizing Paralympic sports within the country. The athletes' outstanding performances highlighted India's continued ascent in the Paralympic arena and set a new benchmark for future participation and success.

India's para-athletes delivered their best-ever performance at the Paris Games, earning an incredible 29 medals—7 gold, 9 silver, and 13 bronze—securing an 18th-place finish in the overall medal tally. This achievement represents a watershed moment for Indian para-sports, showcasing the potential of Indian athletes on the global stage.

Stellar performances led India's medal haul at the 2024 Paris Paralympics from athletes across various disciplines. Avani Lekhara clinched gold in the Women's 10m Air Rifle Standing SH1, while Nitesh Kumar dominated badminton, winning gold in the Men's Singles SL3. Sumit Antil and Dharambir added to the tally with golds in Men's Javelin Throw F64 and Men's Club Throw F51, respectively. Archery saw Harvinder Singh secure gold in the Men's Individual Recurve Open, while Navdeep Singh triumphed in the Men's Javelin Throw F41. Suhas Yathiraj brought home silver in the Men's Singles SL4 badminton event, and Nishad Kumar earned silver in the Men's High Jump T47. Rakesh Kumar and Sheetal Devi took bronze in Archery's Mixed Team Compound Open, rounding off India's historic campaign. Many more athletes contributed to the nation's impressive medal count, making it a collective achievement for Indian para-sports.

The 2024 Paris Paralympics will be remembered as a defining chapter in India's sporting history, inspiring future generations of athletes and reaffirming the nation's commitment to inclusive excellence in sports.

Conclusion

The 2024 Paris Paralympics stand as a monumental milestone in India's Paralympic journey, marking not only the country's most successful performance to date but also a testament to its para-athletes' resilience, talent, and dedication. From the humble beginnings of India's Paralympic debut in 1968 to the record-breaking achievements in Paris, this journey has been remarkable growth, determination, and triumph. The support of government initiatives like Khelo India and TOPS has played a crucial role in empowering these athletes, enabling them to break barriers and redefine India's place on the global stage. As India continues to champion inclusivity in sports, the 2024 Games will be remembered as a defining chapter that inspired millions and set a new standard of excellence for the nation's future Paralympic endeavors.

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Health Ministry Releases "Health Dynamics of India (Infrastructure and Human Resources) 2022-23"

Union Health Ministry released "**Health Dynamics of India (Infrastructure and Human Resources) 2022-23**", an annual publication formerly known as "Rural Health Statistics". The document has been published since 1992.

The annual publication is a valuable document furnishing much needed information on manpower and infrastructure within NHM, helpful in policy making, improving processes and problem solving.

Background:

Since 1992, the publication has provided detailed annual data on health infrastructure and human resources, with updates as of March 31 each year. This data is crucial for stakeholders in the health sector, as it supports effective planning, monitoring, and management of health infrastructure across the country. By providing a clear snapshot of the current state of healthcare infrastructure and human resources, the publication serves as a foundational tool for identifying gaps and addressing needs in various areas, including rural, urban, and tribal regions.

It is structured in two parts:

Part 1 presents an overall view of India's healthcare system with State and Union Territory profiles, using visual aids like maps and charts for clarity.

Part 2 is divided into nine sections, offering in-depth data on health facilities, manpower, and demographic indicators.

The information contained in the publication enables policymakers, health administrators, and planners to assess the distribution and adequacy of healthcare facilities and human resources. It helps in formulating targeted strategies to optimize health service delivery and allocate resources efficiently. Additionally, the data serves as a vision document for understanding the needs in different regions, facilitating a more equitable distribution of health services.

Overall, the publication is an essential resource material for ensuring that health infrastructure development is aligned with the specific requirements of all population groups, ultimately contributing to a more resilient and responsive healthcare system across the country.

As of March 31, 2023, the country has a total of 1,69,615 Sub-Centres (SCs), 31,882 Primary Health Centres (PHCs), 6,359 Community Health Centres (CHCs), 1,340 Sub-Divisional/District Hospitals (SDHs), 714 District Hospitals (DHs), and 362 Medical Colleges (MCs) serving both rural and urban areas.

These healthcare infrastructures are supported by 2,39,911 Health Worker (Male + Female) at SCs, 40,583 Doctors/Medical Officers at PHCs, 26,280 Specialists & Medical Officers at CHCs, and 45,027 Doctors and Specialists at SDHs and DHs. Additionally, there are 47,932 Staff Nurses at PHCs, 51,059 Nursing Staff at CHCs, and 1,35,793 Paramedical Staff at SDHs and DHs across the country.

The publication **"Health Dynamics of India (Infrastructure and Human Resources) 2022-23"** can be accessed under Documents Section on the Ministry of Health & Family Welfare website by using the link: https://mohfw.gov.in/.

The key features of the publication include:

1. **Comparative Analysis**: Provides comparisons of health infrastructure and manpower between 2005 and 2023, and from 2022 to 2023, highlighting progress and gaps.
2. **District-Wise Data**: Offers district-level details of health facilities, including Sub-Centers (SCs), Primary Health Centers (PHCs), Community Health Centers (CHCs), Sub-District Hospitals (SDHs), District Hospitals (DHs), and Medical Colleges.
3. **Rural, Urban, and Tribal Focus**: Details infrastructure and manpower in rural, urban, and tribal areas, providing targeted insights for policy planning.
4. **Classification of States/UTs**: States and Union Territories are categorized based on key healthcare performance metrics, aiding in targeted interventions.
5. **User-Friendly Highlights**: Key findings are summarized at the beginning for quick reference.
6. **Guidance for Stakeholders**: Acts as a crucial tool for healthcare planning and management by identifying gaps and deficiencies in infrastructure and human resources.

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Five Successful Years of Pradhan Mantri Kisan Maandhan Yojana (PM-KMY)

Introduction

Launched on September 12, 2019, the Pradhan Mantri Kisan Maandhan Yojna (PM-KMY) has been providing social security to all land-holding Small and Marginal Farmers (SMFs) across the country.

This old-age pension scheme is a voluntary and contributory pension scheme. Under the initiative, eligible small and marginal farmers are given a fixed monthly pension of Rs. 3,000 after attaining the age of sixty. To qualify, farmers contribute monthly to the pension fund during their working years, with matching contributions from the central government. This landmark scheme to provide a safety net to farmers in their old age has completed five years of its implementation.

Successful Implementation of PM-KMY

Under Pradhan Mantri Kisan Maandhan Yojna (PM-KMY), small and marginal farmers can enroll by paying a monthly subscription to the Pension Fund. Farmers aged between 18 and 40 years need to contribute between Rs. 55 to Rs. 200 per month until they turn 60.

Once they reach the age of 60, enrolled farmers receive a monthly pension of Rs. 3,000, provided they meet the scheme's exclusion criteria. The Life Insurance Corporation (LIC) manages the pension fund, and beneficiary registration is facilitated through Common Service Centres (CSCs) and State Governments.

All farmers with cultivable land holdings of up to 2 hectares and listed in state/UT land records as of 1st August 2019 are eligible for benefits

under the scheme. As of August 6, 2024, a total of 23.38 lakh farmers have joined the scheme.

Under the scheme, Bihar leads with over 3.4 lakh registrations while Jharkhand ranks second with over 2.5 lakh registrations.

Further, Uttar Pradesh, Chhattisgarh, and Odisha have over 2.5 lakh, 2 lakh, and 1.5 lakh farmer registrations, respectively. The huge registration reflects strong uptake in these states, highlighting the scheme's reach and impact in providing social security to farmers. The widespread participation also underscores the growing awareness and adoption of the PM-KMY initiative among small and marginal farmers.

Key Benefits Under PM-KMY

- **Minimum Assured Pension**: Each subscriber to the scheme is guaranteed a minimum pension of Rs. 3000 per month upon reaching the age of 60 years
- **Family Pension**: If a subscriber passes away while receiving their pension, their spouse will be entitled to a family pension equal to 50% of the amount the subscriber was receiving i.e. Rs.1500 per month as Family Pension. This is only applicable if the spouse is not already a beneficiary of the scheme. The family pension benefit is exclusively for the spouse.
- **PM-KISAN Benefit**: SMFs can choose to use their PM-KISAN benefits to make voluntary contributions to the scheme. For this, eligible SMFs must sign and submit an enrolment-cum-auto-debit-mandate form. This will authorize automatic debit of their contributions from the bank account where their PM-KISAN benefits are credited.
- **Equal Contribution by Government**: The Central Government, through the Department of Agriculture Cooperation and Farmers

Welfare, also contributes an equal amount as contributed by the eligible subscriber, to the pension Fund

- **Monthly Contributions**: Monthly contributions are in the range from Rs. 55 to Rs. 200, based on the farmer's age at the time of entry into the Scheme, according to the contribution chart.

Enrolment Process

To enroll in the scheme, eligible farmers need to visit the nearest Common Service Center (CSC) or contact the Nodal Officer (PM-Kisan) appointed by the State or UT Governments. Registration can also be completed through the scheme's official web portal at www.pmkmy.gov.in. The beneficiary will provide the following information at the time of registration:

- Farmer's / Spouse's name and date of birth
- Bank account number
- IFSC/ MICR Code
- Mobile Number
- Aadhaar Number
- Leaving the Pension Scheme

1) If an eligible subscriber exits the Scheme within less than ten years of joining, then the share of contribution will be returned along with the savings bank rate of interest payable thereon

2) If the subscriber exits after ten years but before reaching age sixty, they will receive their contributions plus accumulated interest, either as earned by the Pension Fund or at the savings bank rate, whichever is higher

3) Suppose a subscriber dies while making regular contributions. In that case, their spouse can either continue the Scheme with regular contributions or exit by receiving the subscriber's contributions plus accumulated interest, as earned by the Pension Fund or at the savings bank rate, whichever is higher

4) Upon the subscriber's and spouse's death, the remaining corpus shall be returned to the fund

Conclusion

Over five years of implementation, the PM-KMY has significantly empowered Small and Marginal Farmers (SMFs) across India. One of the key achievements of PM-KMY is its role in providing financial stability to farmers, many of whom face uncertain futures due to the seasonal nature of agriculture and fluctuating incomes.

By securing a pension for their retirement years, the scheme has addressed a significant gap in social security for the rural population. Its success over the past five years underscores its critical role in enhancing one of the country's '*Annadata*' quality of life.

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Understanding Copyright: A Brief Primer

Copyright law grants authors, composers, computer programmers, website designers, and other creators legal protection for their literary, artistic, dramatic, and other types of creations, which are usually referred to as works. It protects a wide variety of original works, such as books, magazines, newspapers, music, paintings, photographs, sculptures, architecture, films, computer programs, video games, and original databases.

Related rights, or neighboring rights, are a category of rights granted to specific people or businesses that play an essential role in performing, communicating, or disseminating content to the public, whether or not that content is protected by copyright.

In many countries, especially those in which copyright developed from a civil law tradition, related rights are an area of law that is different from, although connected to, copyright. In other countries, especially those in which copyright developed from a common law tradition, all or some of these rights are treated as part of copyright.

Traditionally, at least three categories of related rights owners have been recognized:

- performers (e.g., actors, musicians);

- producers of sound recordings, and
- broadcasting organizations.

The copyright system seeks to balance different interests by rewarding authors of original works with limited exclusive rights for their intellectual effort while allowing public access to the work to promote science, culture, and the arts.
Copyright law gives an author or creator of a work a diverse bundle of exclusive rights over their work for a period of time. These rights enable the author to control the economic use of their work in several ways and to receive payment. Copyright law also provides "moral rights," which protect, among other things, an author's reputation and integrity.

Copyright law provides a species of property that may be assigned and licensed to third parties. In most countries, where an employee creates a copyrighted work during their employment, the employer is the first owner of the copyright in that work.

International Sources of Law

The Berne Convention for the Protection of Literary and Artistic Works (1886) protects works and the rights of their authors. It provides creators such as authors, musicians, poets, and painters with the means of controlling how their works are used, by whom, and on what terms.
The Berne Convention is based on three broad principles.

- The principle of national treatment provides that works originating in one of the Contracting States must be given the same protection in each of the other Contracting States as the latter grants to the works of its own nationals.
- The principle of automatic protection provides that protection must not be conditional upon compliance with any formality.

- The principle of independence of protection provides that protection is independent of the protection in the work's country of origin.

The Convention also contains a series of provisions determining the minimum protection standards for works and rights and the duration of protection.

- Economic rights – Subject to certain allowed reservations, limitations, or exceptions, the economic rights that must be recognized as exclusive rights of authorization include the right of:

– translation of a work;
– reproduction of a work in any manner or form;
– public performance or recitation of a work and communication of such performance or recitation to the public;
– broadcasting, or other wireless communication, of a work to the public;
– adaptation and arrangement of a work;
– cinematographic adaptation and reproduction of work and distribution, as well as public performance or communication to the public by wire thereof; and
– in some countries, receiving an interest in resale of specific works.

- Free uses—The Convention requires or allows certain limitations and exceptions to these rights, allowing certain circumstances in which protected works may be used without the authorization of the copyright owner and without payment of compensation. These limitations and exceptions are commonly referred to as the free uses of protected works.
- Moral rights – The Convention also provides the right to claim authorship of the work and object to any mutilation, deformation, or other modification of or other derogatory action about the work that would be prejudicial to the author's honor or reputation.

The Convention also makes special provisions relating to the translation and reproduction of works concerning educational activities available to developing countries.

The International Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations (1961), known as the Rome Convention, extends protection to related rights:

- performing artists enjoy rights over their performances;
- producers of phonograms, over their sound recordings, and
- radio and television organizations, over their broadcast programs.

The Agreement on Trade-Related Aspects of Intellectual Property Rights (1994) binds WTO Member States to further general rules and obligations for intellectual property rights. With respect to each area of intellectual property rights, the TRIPS Agreement defines the subject matter to be protected, the rights to be conferred, permissible exceptions to those rights, and the minimum duration of protection. In addition, it elevates the minimum protection each country has to provide to the nationals of other member countries.

Regarding copyright, the TRIPS Agreement incorporates the protections of the Berne Convention for all WTO Members. In addition to requiring compliance with the basic standards of the Berne Convention, the TRIPS Agreement clarifies and adds certain specific points – namely, it:

- confirms that copyright protection shall extend to expressions and not to ideas, procedures, methods of operation, or mathematical concepts as such;
- provides that computer programs, whether in source or object code, shall be protected as literary works and that the form of the

program, whether in source or object code, does not affect the protection;

- clarifies the protection due to databases and other compilations of data or other material;
- sets a minimum term of protection applicable whenever the term of protection of a work is calculated on a basis other than the life of a natural person and
- requires that limitations or exceptions to exclusive rights be confined to certain special cases that do not conflict with a normal exploitation of the work and do not unreasonably prejudice the legitimate interests of the right owner.

The WIPO Copyright Treaty (1996) and the WIPO Performances and Phonograms Treaty (1996)—known as the WCT and WPPT, respectively, and collectively as the WIPO Internet Treaties—are international norms aimed at preventing unauthorized access to and use of creative works on the Internet or other digital networks.

- The WCT protects authors of literary and artistic works, including computer programs and original databases.
- The WPPT deals with the rights of performers and producers of phonograms.

The two treaties update and supplement the major existing WIPO treaties on copyright and related rights, primarily to respond to developments in technology and the marketplace.

The WIPO Beijing Treaty on Audiovisual Performances (2012) addressed the rights of audiovisual performers in the international copyright framework by extending the economic and moral rights of actors and performers in audiovisual performances, including films, videos, and television programs.

The Marrakesh Treaty to Facilitate Access to Published Works for Persons Who Are Blind, Visually Impaired or Otherwise Print Disabled (2013) is the latest addition to the body of international copyright treaties administered by WIPO. It has a precise humanitarian and social development dimension, and its main goal is to create a set of mandatory limitations and exceptions for the benefit of persons who are blind, visually impaired, and otherwise print-disabled.

A large number of countries are contracting parties to several critical international treaties that have helped to harmonize, to a considerable extent, the level of copyright and related rights protection among countries. However, there are essential differences in obtaining protection for work under the national laws of different countries.

This article was prepared from the WIPO manual and can be downloaded here.

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"We live in a wonderful world that is full of beauty, charm, and adventure. There is no end to the adventures we can have if only we seek them with our eyes open"

Jawahar Lal Nehru

52

Anusandhan National Research Foundation

Anusandhan National Research Foundation (ANRF) has been established to promote research and development and foster a culture of research and innovation throughout India's Universities, Colleges, Research Institutions, and R&D laboratories. ANRF acts as an apex body to provide high-level strategic direction of scientific research in the country as per recommendations of the National Education Policy. ANRF forges collaborations among the industry, academia, government departments, and research institutions. The ANRF will launch programs on solution-focused research in a mission mode in select priority areas like Electric Vehicle (EV) mobility, Advanced Materials, Solar Cells, Smart Infrastructure, Health & Medical Technology, Sustainable Agriculture, and Photonics.

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"The Three Mantras of Happiness

Think of old friends

Make new friends

Become your own best friend"

Anonymous

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National e-Vidhan Application 2.0

The Launching Programme of various Initiatives/Portals as part of 100 Days Achievements of the Ministry of Parliamentary Affairs was organised on 11th September, 2024 in Parliament House Annexe at New Delhi.

The following six initiatives/portals are slated to be launched by the Ministry of Parliamentary Affairs (GOI):

1. **National e-Vidhan Application-NeVA 2.0**
2. **NeVA Mobile App version 2.0**
3. **Subordinate Legislation Management System (SLMS)**
4. **Consultative Committee Management System (CCMS)**
5. **NYPS Portal 2.0**
6. **Eklavya Model Residential Schools (EMRSs)**

The upgraded version of NeVA 2.0, introduces several advanced features, including a more user-friendly interface and enhanced integration with the legislative processes of State Legislatures.

Further, based on the recommendation in the 28th report of Committee on Subordinate Legislation (COSL), Lok Sabha, this Ministry has developed a portal, which will provide a single window interface to bring four stakeholders i.e. i) All Ministries /Departments under Government of India ii) Cabinet Secretariat (iii) Legislative Department and iv) Ministry of Parliamentary Affairs on a single platform. This initiative will lead to better decision-making and early framing of Subordinate Legislations under different Acts.

The portal related to Consultative Committee Management System (CCMS) has been envisioned and designed to bring three stakeholders

viz. i) Hon'ble Members of Parliament ii) Ministries of Govt. of India iii) Ministry of Parliamentary Affairs, of the Consultative Committees on the same platform. With the help of this portal, all information/documents of the Committees will be available on a real time basis to concerned Member/Ministry thereby ensuring that all are well informed and they can interact digitally with each other.

The NYPS Portal 2.0 has been developed by the Ministry so that the number of participants in the portal can be increased exponentially by opening the Portal for all the citizens of the country irrespective of students of recognized educational institutions. Now, participation in the Scheme can also be done through Institution Participation, Group Participation and Individual Participation. It would ultimately help in the spread of democratic ethos and values among students and youth and outreach would increase manifold.

Similarly, the Ministry is also launching a new scheme of National Youth Parliament Competition for the students of Eklavya Model Residential Schools (EMRSs). The aims and objectives of the scheme is to strengthen the roots of democracy, develop tolerance of divergent views, inculcate healthy habits of discipline and familiarise with the working of Parliament and Parliamentary institutions in the tribal students through organising National Youth Parliament Competitions annually among the EMRSs.

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Launch of Phase III of Capacity-Building Initiatives Under Digital India Vision

The Ministry of Electronics and Information Technology (MeitY) has launched the third phase of its capacity-building initiatives. These initiatives focus on critical areas such as **Digital Public Infrastructure**, **Contract and Procurement Management**, the **Application of AI and ML, managing large digital transformation projects**, **Digital Governance**, and **Data Management**.

The second regional program of this series, focused on **'Digital Public Infrastructure,'** was inaugurated on September 10, 2024, at the India Habitat Centre, Delhi. This initiative, spearheaded by the **National e-Governance Division (NeGD) MeitY**, is in partnership with the **National Institute for Smart Governance (NISG)**, the training partner, who will bring their expertise to ensure a comprehensive and effective training program.

Enhancing Skills in Digital Public Goods Projects

NeGD, under MeitY, is at the forefront of implementing **Digital Public Goods (DPGs)**, revolutionizing how citizens access public services. This training session provides a distinctive and engaging learning opportunity for the officials of the participating organization. By integrating theoretical concepts with practical case studies and engaging with industry experts, the training provides participants with the required knowledge and abilities to pursue the Digital Public Infrastructure journey in their specific departments.

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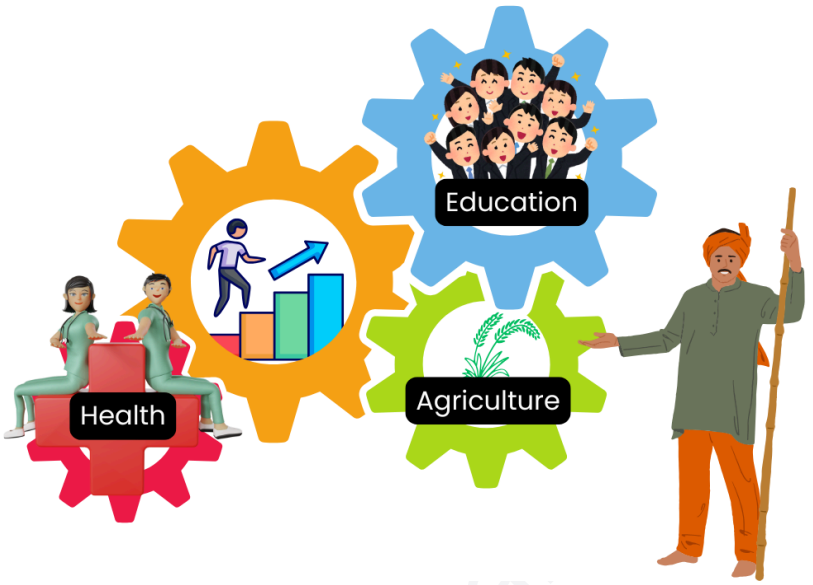
India's Social Enterprises



The market opportunity and potential for social enterprises in India are estimated to be US$8 billion (€ 7 billion) by next year. Social enterprises have always been a vital part of Indian life, significantly impacting the agriculture, health, and education sectors. These enterprises are believed to play a crucial role in improving the lives of millions and driving social progress across the country.

The Social Stock Exchange (SSE) is a pioneering government initiative aimed at providing social enterprises with enhanced visibility and access to capital. It offers a platform for these enterprises to attract investment, measure their social impact, and demonstrate their effectiveness in addressing societal issues. Over twenty social enterprises have already been listed on the exchange.

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Quality Council of India (QCI) Approves National Test House (NTH), Ghaziabad as a Certification Body for Type Certification of Drones

As part of the Certification Scheme for Unmanned Aircraft Systems (UAS), the Quality Council of India (QCI) has provisionally approved the National Test House (NTH), Northern Region, Ghaziabad, as a Certification Body for drone-type certification. This significant milestone aligns with the Government of India's push towards fostering a robust and globally competitive drone ecosystem under the Drone Rules 2021.

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Pradhan Mantri Matsya Sampada Yojana (PMMSY)

The Pradhan Mantri Matsya Sampada Yojana (PMMSY) has emerged as a game-changer, steering India's fisheries sector towards unprecedented growth and sustainability. Launched in May 2020, this visionary scheme, under the aegis of the Ministry of Fisheries, Animal Husbandry and Dairying, Government of India, aimed to address critical gaps in fish production and productivity, quality, technology, post-harvest infrastructure and management, modernization, and strengthening of the value chain, traceability, establishing a robust fisheries management framework and fishers' welfare.

Over the years, PMMSY has evolved into a comprehensive blueprint for the holistic development of the country's fisheries and aquaculture sector. PMMSY marks the highest-ever investment at Rs. 20,050 crores in the fisheries sector and embarking on a strategic journey, the initiative delves into the domain of inland fisheries and aquaculture, recognizing

their pivotal role in bolstering production and ensuring robust food security.

The reforms and initiatives taken up under PMMSY have been inculcated in core and trunk infrastructure development, modernization of Indian fisheries and aquaculture sector, especially for the development of new fishing harbors/landing centers, modernization and mechanization of traditional fishermen crafts-trawlers-deep sea-going vessels, facilities for supply for quality feed & seed for boosting the aquaculture in the country, provision of post-harvest facilities to reduce post-harvest loss, cold chains facilities, value addition, clean and hygienic fish markets and many more. Fishermen are provided livelihood support during the fishing ban/lean period, insurance coverage, financial assistance, and a Kisan Credit Card. PMMSY has set a way forward to enhance its utilization by invigorating the rural economy.

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Major Initiatives for Prevention of Cyber Crime

The **Cyber Fraud Mitigation Centre (CFMC)** has been established at the Indian Cyber Crime Coordination Centre (14C) in New Delhi with representatives of major banks, financial intermediaries, payment aggregators, telecom service providers, IT intermediaries, and States/UTs Law Enforcement Agencies (LEAs). They will work together for immediate action and seamless cooperation to tackle online financial crimes. CFMC will be an example of "Cooperative Federalism" in law enforcement.

The Samanvay **Platform (Joint Cybercrime Investigation Facilitation System) plays a comprehensive role in the cyber fraud mitigation**

strategy. It is a web-based module that serves as a one-stop portal for cybercrime data repositories, data sharing, crime mapping, and data analytics, as well as a cooperation and coordination platform for Law Enforcement Agencies across the country.

The Cyber Commandos Program is a proactive initiative aimed at countering the evolving cyber security threats in the country. Under this program, a special wing of trained Cyber Commandos will be established in States/UTs and Central Police Organizations (CPOs).

Suspect Registry: As part of this initiative, a Suspect Registry of various identifiers is being created based on the National Cybercrime Reporting Portal (NCRP) in collaboration with banks and financial intermediaries to strengthen the financial ecosystem's fraud risk management capabilities.

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"What if you failed yesterday? Today is not yesterday"
Anonymous

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National Florence Nightingale Awards

The National Florence Nightingale Award was instituted by the Ministry of Health and Family Welfare, Government of India, in 1973 as a mark of recognition for the meritorious services rendered by nurses and nursing professionals to society.

Fifteen awards are given in the Registered Auxiliary Nurses and Midwife, Registered Nurses and Midwife, and Registered Lady Visitor categories. Outstanding nursing personnel in Central, State/UTs, and voluntary organizations receive the award. The nurse is eligible for the national award in their regular job in the hospital or community setting or in an educational or administrative setting. Each award consists of a Certificate of Merit, a cash award of Rs.1,00,000/—, and a medal.

Nurses, the unsung heroes and the backbone of the healthcare system, play a pivotal role in ensuring the well-being of the society. The Government of India, under the leadership of the Hon'ble Prime Minister, has taken several initiatives to strengthen nursing and midwifery education. The major initiatives, such as the establishment of 157 colleges of nursing in co-location with the medical colleges and the constitution of the National Nursing and Midwifery Commission to revamp nursing education and practice, will lead to better healthcare services for the entire country, thereby underscoring the importance and respect for the nursing profession.

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Trade Connect e-Platform

The Trade Connect e-Platform is a fast, accessible, and transformational single-window initiative that will enable exporters to enter new markets.

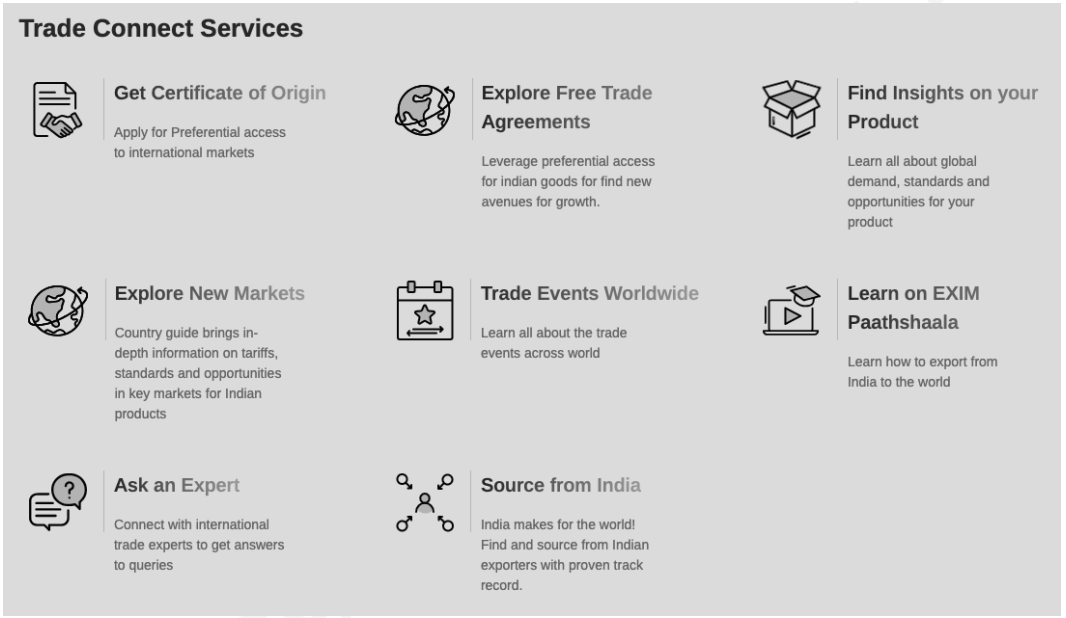
The Trade Connect e-Platform (https://trade.gov.in) is a new digital initiative aimed at transforming the landscape of international trade for Indian exporters, especially MSMEs (Medium, Small and Medium Enterprises). The platform, developed in collaboration with key partners including the Ministry of MSME, EXIM Bank, Department of Financial Services (DFS), and the Ministry of External Affairs (MEA), is set to address information asymmetry by offering exporters a wealth of comprehensive support and resources, ensuring they are well-equipped for their international trade endeavors.

The Trade Connect e-Platform serves as a one-stop solution, providing exporters with real-time access to critical trade-related information, while seamlessly connecting them to key government entities such as the Indian Missions abroad, Department of Commerce, Export Promotion Councils, and other trade experts. Whether a seasoned exporter or a new entrant, the platform is designed to assist businesses at every stage of their export journey, ensuring they are always in control and well informed.

The platform offers a range of features aimed at simplifying the complexities of international trade, including - Product and Country guides for comprehensive market insights, Trade Agreements and Tariff explorers to unlock the benefits of Free Trade Agreements (FTAs), Global E-Commerce guide for thriving in online markets, EXIM Paathshala to educate exporters on mastering global trade, source From

India to showcase Indian products globally, Ask an Expert for real-time advice from trade professionals.

By leveraging this platform, our exporters will be able to access international markets more efficiently, use trade agreements, and grow their presence on the global stage. The economic outcome will likely include higher export volumes, market diversification, and increased global competitiveness for Indian businesses, leading to overall economic growth and enhanced trade opportunities.



This initiative aligns with the government's vision of promoting a Digital India, fostering greater transparency, and empowering businesses by providing seamless access to crucial trade information. With the Trade Connect e-Platform, the Ministry of Commerce and Industry seeks to reduce the costs, lead times, and complexities associated with global trade, ultimately ensuring that Indian businesses can thrive in the international marketplace.

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Mission Mausam

Mission Mausam, to be chiefly implemented by the Ministry of Earth Sciences, is envisaged to be a multifaceted and transformative initiative to tremendously boost India's weather and climate-related science, research, and services. It will help better equip stakeholders, including citizens and last-mile users, to tackle extreme weather events and the impacts of climate change. The ambitious program will help broaden capacity and resilience across communities, sectors, and ecosystems in the long run.

Under Mission Mausam, India is poised to significantly expand its research and development in atmospheric sciences, particularly in weather surveillance, modeling, forecasting, and management. By incorporating advanced observation systems, high-performance computing, and cutting-edge technologies such as artificial intelligence and machine learning, Mission Mausam is set to redefine weather prediction with unprecedented accuracy.

The mission's focus will include improving observations and understanding for providing highly accurate and timely weather and climate information across temporal and spatial scales, including monsoon forecasts, alerts for air quality, extreme weather events and cyclones, weather interventions for managing fog, hail, and rain, etc., capacity building and generating awareness. Mission Mausam's critical elements will include:

- Deploying next-generation radars and satellite systems with advanced sensors and high-performance supercomputers.
- Developing improved Earth system models.
- A GIS-based automated Decision Support System for real-time data dissemination.

Mission Mausam is expected to directly benefit a wide array of sectors, including agriculture, disaster management, defense, environment, aviation, water resources, power, tourism, shipping, transport, energy, and health. It will also enhance data-driven decision-making in urban planning, road and rail transport, offshore operations, and environmental monitoring.

Three Ministry of Earth Sciences institutes, the India Meteorological Department, the Indian Institute of Tropical Meteorology, and the National Centre for Medium-Range Weather Forecasting, will primarily implement Mission Mausam. These institutions will be supported by other MoES institutions (Indian National Centre for Ocean Information Services, National Centre for Polar and Ocean Research, and National Institute of Ocean Technology), along with collaborating national and international Institutes, Academia, and Industries, furthering India's leadership in weather and climate sciences and services.

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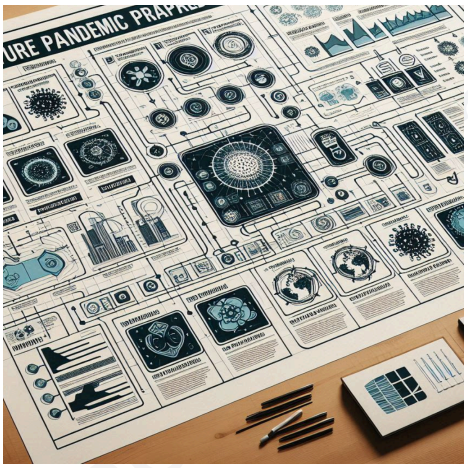
Report of the Expert Group Report on 'Future Pandemic Preparedness – A Framework for Action'

NITI Aayog today released an Expert Group report titled 'Future Pandemic Preparedness and Emergency Response —A Framework for Action'. The expert group in the report has provided a blueprint for the country to prepare for any future public health emergency or pandemic and have a rapid response system in place.

The COVID-19 contagion is undoubtedly not the last pandemic. Given the unpredictability, changing planetary ecology, climate and human-animal-plant dynamics, new potentially large-scale infectious threats to human health are inevitable. The WHO has warned the world that 75% of future public health threats are likely to be zoonotic threats (which could be due to emerging, re-emerging and new pathogens).



In view of this, NITI Aayog constituted an Expert Group to prepare a Framework for Action for Future Pandemic Preparedness and Emergency Response. The Terms of Reference for the group were to examine how COVID-19 was managed at the national and global levels, pick up the key learnings both from the success stories and challenges faced, and assess the key gaps which need to be addressed to help us prepare and respond more efficiently and effectively in any future public health crisis.

In response to SARS-COV2, India made efforts to produce novel countermeasures and strengthened its research and development framework. These included mechanisms for funding of industry and

researchers, establishment of shared resources; policy and guidelines for sharing of data, samples, regulation; public-private partnerships and global collaborations. India also invested in digital tools for pandemic response and vaccination, which helped manage data of more than 1.4 billion population.

Learning from the experience of COVID-19, the experts realised that responding in the first 100 days of an outbreak is crucial for effective management. It is critical to be ready with strategies and counter-measures which can be made available within this period. This report provides an action plan for a 100-day response to any outbreak or pandemic. It outlines the detailed roadmap for preparedness and implementation, indicating the steps on how the outbreak can be tracked, tested, treated and managed through a well-developed framework. It suggests a structure that integrates and strengthens all existing components and builds the required components to deliver the outputs that meet the targets of a 100-day response mission.

The recommendations of the Pandemic Preparedness and Emergency Response Framework (PPER) are in four pillars:

1. Governance, Legislation, Finance and Management
2. Data Management, Surveillance and Early Predictive Warning, Forecasting and Modelling,
3. Research and Innovation, Manufacturing, Infrastructure, Capacity building/Skilling
4. Partnership, Community engagement including risk communication, Private sector partnerships, and international collaborations

Preparing the proposed framework for action for future pandemic preparedness and emergency response involved consultations with over 60 experts and stakeholders, analysing the experience so far, examining

national and global success stories and identifying key gaps that need attention. The stakeholder meetings were crucial and provided valuable insights for preparing the report. The consultations included national and international experts from public health, clinical medicine, epidemiology, microbiology, industry and academia, and senior government officials at the Centre and State level. These experts were at the frontline of the COVID-19 response at the local, national and international levels and played an important role in the policy, planning and implementation of the COVID response.

The expert group in the report has provided a blueprint for the country to prepare for any future public health emergency or pandemic and have a rapid response system. From examining the lessons learned and challenges faced during the COVID-19 pandemic to recommendations and a roadmap for governance and management of public health emergencies in the future, this report is a starting point for the country's pandemic preparedness and prevention efforts.

The report may be accessed online at the following link:

https://www.niti.gov.in/sites/default/files/2024-09/Report-of-the-Exper-Group--Future-Pandemic-preparedness-and-emergency-response_0.pdf

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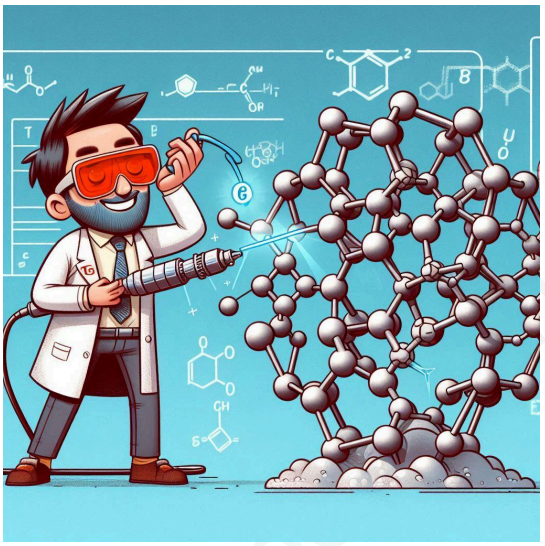
Technology for Improvement Energy Storage

A new method of introducing controlled defects in MOF-Based supercapacitors through laser irradiation, can help enhance performance of existing energy storage technologies.

In recent years, several methods have been investigated for creating defects, such as thermal annealing, chemical exposure, high-energy ball milling, e-beam, and chemical vapor deposition. However, the extent of defects could not be controlled in the materials using these methods. Traditional methods lack the precision needed for fine-tuning of defects.



In order to enhance the activity of the pristine MOF (Metal Organic Framework) without transforming it into other materials or creating a composite out of it, scientists at **Institute of Nano Science and Technology (INST), Mohali, an autonomous institute of Department of Science and Technology** carefully adjusted laser power to systematically regulate defects and porosity resulting in a significant increase in the electrode's surface area and activity.

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Foreign Exchange (Compounding Proceedings) Rules, 2024

In pursuance of the Union Budget 2024-25 announcement by Union Minister for Finance and Corporate Affairs Smt. Nirmala Sitharaman to simplify rules and regulations for Foreign Investments, the Department of Economic Affairs (DEA), Ministry of Finance, has today notified the Foreign Exchange (Compounding Proceedings) Rules, 2024 under powers given under section 46 read with section 15 of the Foreign Exchange Management Act (FEMA), 1999. The amended Rules will supersede the existing Foreign Exchange (Compounding Proceedings) Rules issued in 2000.

As part of a broader initiative to streamline and rationalize existing rules and regulations to further facilitate ease of doing business, the compounding proceeding rules were comprehensively reviewed in consultation with the Reserve Bank of India.

The emphasis has been on enabling provisions to expedite and streamline the processing of compounding applications, introducing digital payment options for application fees and compounding amounts, and focusing on simplification and rationalization of the provisions to eliminate ambiguity and clarify the process.

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Ayushman Bharat Becomes Bigger

The world's largest health insurance scheme extends free health coverage to all senior citizens over 70. In a significant move, the Union Cabinet approved a major expansion of the *Ayushman Bharat Pradhan Mantri Jan Arogya Yojana* (AB PM-JAY) on September 11, 2024. Under this decision, all senior citizens aged 70 and above will receive health coverage, regardless of their income.

Ayushman Bharat

Launched in 2018, *Ayushman Bharat* is a landmark health initiative designed to provide universal health coverage, particularly for rural and vulnerable populations. The mission aims to implement transformative interventions that address health needs comprehensively across primary, secondary, and tertiary levels.

Ayushman Bharat is designed to implement transformative interventions that address the entire spectrum of healthcare across primary, secondary, and tertiary levels. It follows a continuum-of-care approach and consists of two interrelated components:

Ayushman Bharat represents a groundbreaking shift in India's healthcare landscape by seamlessly integrating comprehensive care across primary, secondary, and tertiary levels. Through its umbrella features, the scheme not only addresses immediate health needs but also emphasizes preventive care and health promotion, making healthcare more accessible and equitable. This comprehensive approach ensures that all aspects of healthcare are covered, providing reassurance to the public.

As *Ayushman Bharat* continues to evolve, it is set to further transform India's health sector by expanding access to quality healthcare services,

reducing the financial burden on families, and improving overall health outcomes. This comprehensive approach, with its potential for further development, will likely lead to a more inclusive and efficient healthcare system, setting a precedent for health reforms and driving long-term improvements in public health across the country. This future potential should give the public hope for a better healthcare system.

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"Don't let one cloud obliterate the whole sky"

Anais Nin

66
Mandatory Quality Regulations in Furniture

The government has introduced stringent regulations mandating fire-resistant upholstery fabrics for non-domestic furniture. Effective October 2023, the Quality Control Order (QCO) now requires all upholstery components used in public spaces to comply with the Bureau of Indian Standards (BIS) norms, specifically IS 15768:2008.

The QCO applies to upholstered composites and fabrics used in non-domestic furniture in public areas such as offices, malls, airports, restaurants, underground shopping complexes, museums, hospitals, places of worship, and educational institutions. This order is also applicable to all imports of complete furniture or sub-assemblies having upholstered fabric meant for public use; however, relaxation until 31 March 2025 has been provided on the industry's request.

The Ministry of Textiles has also requested the Department for Promotion of Industry and Internal Trade (DPIIT) to integrate IS 15768:2008 into the QCOs for furniture. This integration will provide a comprehensive framework covering all relevant standards for furniture.

This decisive action underscores the government's unwavering commitment to enhancing fire safety in public spaces and ensuring that all non-domestic furniture meets the highest quality and safety standards, thereby safeguarding lives and property.

The QCOs are part of the government's proactive strategy to ensure quality and safety in critical products. While BIS certification is voluntary for many products, compliance with these standards for strategic items like fire-retardant upholstery is now compulsory. This regulation is a significant step towards creating safer public spaces and ensuring that the furniture used in these environments meets the highest safety standards.

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"If you believe in yourself anything is possible"

Anonymous

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CBIC Extends Export-Related Benefits for Exports Made Through Courier Mode

The Central Board of Indirect Taxes and Customs (CBIC) has made suitable amendments to the Courier Imports and Exports (Electronic Declaration and Processing) Regulations, 2010 *vide* Notification no. 60/2024-Customs (NT) dated 12.09.2024.

Briefly, these amendments are:

1. Specifically, provide for Duty Drawback, RoDTEP, and RoSCTL in the regulations;
2. Incorporate a reference to the 'electronic integrated declaration' which is filed on ICES as provided in the Shipping Bill (Electronic Integrated Declaration and Paperless Processing) Regulations, 2019; and
3. Courier Export Manifest (CEM) shall be filed in all cases of courier exports, except where the export is under Duty Drawback, RoDTEP, or RoSCTL scheme. The Export General Manifest would cover such shipments.

The courier import and export shipments are handled on the Express Cargo Clearance System (ECCS) for clearance at the notified International Courier Terminals (ICTs). Owing to inherent limitations of the system's architecture, it has not been feasible to process certain export-related payments (i.e., Duty Drawback, RoDTEP, and RoSCTL) on ECCS.

Hence, as mentioned earlier, it has been decided to use the Indian Customs EDI System (ICES) at the International Courier Terminals to

process the payments, as ICES has the requisite facilities, such as scroll generation and integration with PFMS.

The modality is briefly as below:

1. The authorised couriers shall file a shipping bill on ICEGATE, where Drawback/ RoDTEP/ RoSCTL benefit is claimed, based on their existing courier registration granted by the jurisdictional customs formation. The shipping bill shall be processed using the ICES application.
2. The custodian operating the International Courier Terminals (ICT) shall register as a custodian on ICEGATE to handle the registration of export goods and the exchange of custodian-related messages. After the goods are registered at ICT, they shall be examined at ICT.
3. Thus, while the logistics of the courier terminal will be used for physical handling and examination purposes, the customs clearance will be handled on ICES.
4. The modality will be further elaborated on in an advisory to be issued by DG Systems, which will benefit all concerned.

CLICK HERE TO ACCESS THE NOTIFICATION

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Montreal Protocol and India

India, a party to the Montreal Protocol since June 1992, has been successfully implementing the Protocol and its ozone-depleting substances phase-out projects and activities in line with the Protocol's phase-out schedule. India has phased out Chlorofluorocarbons, Carbon tetrachloride, Halons, Methyl Bromide, and Methyl Chloroform for controlled uses as of 1 January 2010, in line with the Montreal Protocol phase-out schedule. Hydrochlorofluorocarbons (HCFCs) are being phased out as per the accelerated schedule of the Montreal Protocol.

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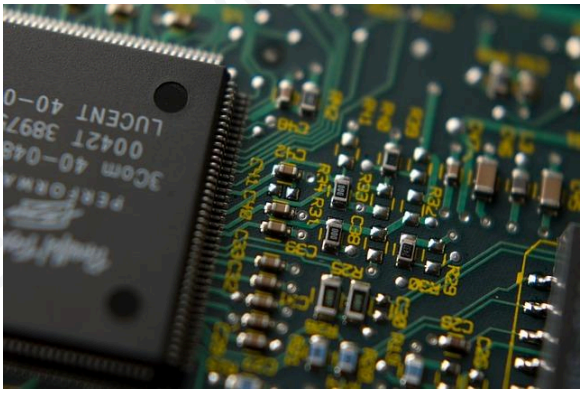
How India is Shaping Global Leadership in Innovation & Manufacturing

Driving Global Leadership in Advanced Technology & Manufacturing

A massive technological and industrial transformation is unfolding in India. The Indian manufacturing sector is steadily moving toward more automated and process-driven manufacturing, projected to improve efficiency and enhance productivity. Technology has encouraged creativity, and digital transformation is critical to gaining an advantage in this increasingly competitive industry.

The government's efforts to turn India into a global electronics and semiconductor hub are supported by initiatives like the Production-Linked Incentive (PLI) schemes, mega industrial corridors, and significant investments. In tandem with these, India's renewable energy push, especially in solar energy and EV adoption, positions the nation at the forefront of clean energy technologies.

India's Semiconductor Mission



About Semiconductors

Semiconductors, also known as integrated circuits (ICs) or microchips, are essential components of our daily lives due to their integral role in the fabrication of electronics such as phones, computers, automobiles,

planes, medical instruments, military weapons, home and kitchen appliances, and solar cells.

Semiconductor chips are present in all electronic instruments, aiding in improvements and evolution in innumerable applications such as communications, computing, health care, military systems, transportation, and clean energy. Semiconductors are vital for sustaining state-of-the-art technology and are forecasted to play an even enhanced role with the development of new technologies like artificial intelligence (AI), 5G, Internet of Things (IoT), smart cars and factories, robotics, etc.

Recognizing the need for a robust and comprehensive policy framework, the Union Cabinet in 2021 approved the Semicon India program with a financial outlay of INR 76,000 crore to develop a sustainable semiconductor and display ecosystem. The Semicon India Program aims to provide an impetus to semiconductor and display manufacturing by facilitating capital support and technological collaborations. India has developed policies to support every segment of the semiconductor ecosystem, not just focusing on fabs but also including packaging, display wires, OSATs, sensors, and more.

There are four schemes under this program:

1. Modified Scheme for setting up Semiconductor Fabs in India
2. Modified Scheme for setting up Display Fabs in India
3. Modified Scheme for setting up of Compound Semiconductors / Silicon Photonics / Sensors Fab / Discrete Semiconductors Fab and Semiconductor Assembly, Testing, Marking, and Packaging (ATMP) / OSAT facilities in India'
4. Design Linked Incentive (DLI) Scheme

India's semiconductor ecosystem has seen significant momentum, with several landmark projects gaining approval. The first major project with Micron was approved at nearly Rs 22,000 crores, and Tata's joint venture with Taiwan's Powerchip in Dholera is another shining example. Five such proposals have a combined investment nearing Rs 1.52 lakh crores.

Recently, the Union Cabinet, chaired by Prime Minister Narendra Modi, approved Kaynes Semicon Pvt Ltd's proposal to set up a semiconductor unit in Sanand, Gujarat. The proposed unit will be set up with an investment of Rs 3,300 crore. Its capacity will be 60 Lakh chips per day. The chips produced in this unit will cater to various applications, including industrial, automotive, electric vehicles, consumer electronics, telecom, mobile phones, etc.

1. Semiconductor Fab with 50,000 wfsm capacity:

- Tata Electronics Private Limited ("TEPL") will partner with Powerchip Semiconductor Manufacturing Corp (PSMC) of Taiwan to establish a semiconductor fab.
- Investment: This fab will be constructed in Dholera, Gujarat, costing Rs.91,000 crore.
- Capacity: 50,000 wafer starts per month (WSPM)

2. Semiconductor ATMP unit in Assam:

- Tata Semiconductor Assembly and Test Pvt Ltd ("TSAT") will set up a semiconductor unit in Morigaon, Assam.
- Investment: This unit will be set up with an investment of Rs.27,000 crore.
- Capacity: 48 million per day
- It is expected to generate 15,000 direct and 11,000-13,000 indirect jobs.

3. **Semiconductor ATMP unit for specialized chips:**
   - CG Power will establish a semiconductor unit in Sanand, Gujarat, in partnership with Renesas Electronics Corporation in Japan and Stars Microelectronics in Thailand.
   - Investment: This unit will be set up with an investment of Rs.7,600 crore.
   - Capacity: 15 million per day

4. **Micron Semiconductor facility – Memory and Storage Products - Sanad, Gujarat**
   - Investment: A capital investment of Rs 22,516 crore with 50% fiscal support from the Government of India on a *pari passu* basis.
   - Employment: Expected to create up to 5,000 direct and 15,000 indirect job opportunities over the next five years.

With these units, India is establishing the semiconductor ecosystem. India already has deep capabilities in chip design, and with these units, it will develop capabilities in chip fabrication.
They will accelerate employment creation in downstream automotive, electronics, telecom, industrial, and other semiconductor-consuming industries.

National Green Hydrogen Mission

The Union Cabinet approved the National Green Hydrogen Mission on January 4, 2023, with an outlay of ₹ 19,744 Crore. The mission's overarching objective is to make India a Global Hub for producing, using, and exporting Green Hydrogen and its derivatives by 2030, aiming to create 5 MMT annually.

The Green Hydrogen production capacity envisaged by 2030 is likely to leverage over ₹8 lakh crore in total investments in the Green Hydrogen industry. This investment is estimated to create 6,00,000 jobs by 2030.

Green Hydrogen has the potential to replace the utilization of imported fossil fuels across various sectors, including fertilizer production, petroleum refining, the mobility sector, steel production, and shipping propulsion applications. The mission is expected to reduce a cumulative ₹ 1 lakh crore worth of fossil fuel imports by 2030.

Cabinet approves 12 Industrial nodes/cities under the National Industrial Corridor Development Programme

India will soon wear a grand necklace of Industrial Smart Cities. The cabinet recently approved 12 new project proposals under the National Industrial Corridor Development Programme (NICDP) with an estimated investment of Rs. 28,602 crore. This move will transform the country's industrial landscape, creating a robust network of industrial nodes and cities that will significantly boost economic growth and global competitiveness.

Spanning across ten states and strategically planned along six major corridors, these projects represent a significant leap forward in India's quest to enhance its manufacturing capabilities and economic growth. These industrial areas will be located in Khurpia in Uttrakhand, Rajpura-Patiala in Punjab, Dighi in Maharashtra, Palakkad in Kerala, Agra and Prayagraj in UP, Gaya in Bihar, Zaheerabad in Telangana, Orvakal and Kopparthy in AP and Jodhpur-Pali in Rajasthan.

Economic Impact and Employment Generation

NICDP is expected to generate significant employment opportunities, with an estimated 1 million direct jobs and up to 3 million indirect jobs created through planned industrialization. This will provide livelihood opportunities and contribute to the socio-economic upliftment of the regions where these projects are being implemented.

Electric Vehicles

India needs electric vehicles (EVs) to address several pressing issues, including environmental pollution, energy security, and economic sustainability. The widespread adoption of EVs can significantly reduce air pollution, a significant public health concern in many Indian cities. By shifting from fossil fuels to electric power, India can decrease its dependence on oil imports, enhance national energy security, and reduce its vulnerability to global oil price fluctuations. Embracing electric vehicles is critical to India's cleaner, healthier, and more sustainable future.

The Ministry of Heavy Industries is currently implementing the following schemes to promote Electric Vehicles (EVs) in the country: -

- Electric Mobility Promotion Scheme 2024 (EMPS), with an outlay of ₹ 778 Crore for six months, from April 1, 2024, to September 30, 2024, provides incentives to buyers of e-2W and e-3W.
- Production-Linked Incentive Scheme for Automobile and Auto Component Industry (PLI-AAT) with a budgetary outlay of ₹ 25,938 Crore. The Scheme incentivizes various categories of electric vehicles, including e-2W, e-3W, e-4W, e-buses, and e-trucks.
- Production-Linked Incentive Scheme for manufacturing Advanced Chemistry Cell (PLI-ACC) in the country with a budgetary outlay of ₹18,100 Crore.
- Scheme to Promote Manufacturing of Electric Passenger Cars to attract investments from global EV manufacturers and promote India as a manufacturing destination for e-vehicles.

The Ministry of Heavy Industries (MHI) formulated a Scheme, namely, Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India (FAME India) Scheme, in 2015 to promote the adoption of electric/ hybrid vehicles (EVs) in India. Phase I of the Scheme was available until

March 31, 2019, with a budget outlay of Rs. 895 Crore. This phase of the FAME India Scheme had four focus areas: technological development, demand generation, pilot projects, and charging infrastructure components.

In the 1st phase of the Scheme, about 2.8 lakh xEVs were supported with total demand incentives of Rs. 359 Crore (Approx). In addition, 425 electric and hybrid buses, as sanctioned under the first phase of the Scheme, were deployed across various cities in the country with a Government Incentive of about Rs. 280 Crore. The Ministry of Heavy Industries had also sanctioned about 520 Charging Stations/ Infrastructure for Rs. 43 Crore (approx.) under Phase-I of the FAME India Scheme. Based on the outcome and experience gained during Phase-I of the FAME India Scheme and after having consultations with all stakeholders, including Industry and Industry Associations, the government notified Phase-II of the FAME India Scheme for five years commencing from 1st April 2019 with a total budgetary support of Rs. 11,500 crores.

This Phase II mainly focused on supporting the electrification of public & shared transportation and aimed to support through demand incentives 7,262 e-Buses, 1,55,536 e-3 Wheelers, 30,461 e-4 Wheeler Passenger Cars, and 15,50,225 e-2 Wheelers. In addition, the creation of charging infrastructure is also supported under the Scheme. Under Phase II of the FAME India Scheme, as of 31/07/2024, claims of 16,71,606 electric vehicles for Rs. 6,825 crore have been submitted for subsidy reimbursement by the OEMs (EV manufacturers). Further, 6862 electric buses were sanctioned to various cities/STUs/State Govt. entities for intra-city operations under the FAME-II Scheme. Of 6,862 e-buses, 4,853 e-buses have been supplied until July 31, 2024.

MHI has also sanctioned Rs. 800 Crore as capital subsidy to the three Oil Marketing Companies (OMCs) of the Ministry of Petroleum and Natural Gas (MoPNG) to establish 7,432 electric vehicle public charging stations. A subsidy of Rs.560 crore has already been released to OMCs. Further, in March 2024, MHI sanctioned an additional Rs.73.50 Crore under FAME II to OMCs for setting up/upgrading 980 public fast charging stations by installing new chargers across the country. A subsidy of Rs.51.45 crore has already been released to OMCs.

Renewable Energy

The Ministry of New and Renewable Energy is working towards the target of 500 GW of installed electricity generation capacity from non-fossil sources by 2030. Further, in its Nationally Determined Contribution (NDC) submitted to the United Nations Framework Convention for Climate Change (UNFCCC), India has committed to achieving about 50 percent cumulative electric power installed capacity from non-fossil fuel-based energy resources by 2030.

The following steps have been taken to increase the production capacity of renewable energy between 2014-15 and 2023-24 in the country: -

1. The installed capacity, which was 2,48,554 MW in March 2014, increased to 4,46,190 MW in June 2024. The installed capacity of the renewable sector increased from 75,519 MW in March 2014 to 1,95,013 MW in June 2024.
2. India has committed to augmenting its non-fossil fuel-based installed electricity generation capacity to over 500,000 MW by 2031-32. The transmission plan for integrating the 500,000 MW RE capacity is being implemented in a phased manner commensurate with the addition of the RE capacity.
3. The government has constructed Green Energy Corridors and placed 13 Renewable Energy Management Centres.

4. Waiver of ISTS charges on the transmission of electricity generated from Solar, Wind, Pumped Storage Plants, and Battery Energy Storage Systems.
5. In 2019, the government announced measures to promote the Hydropower Sector, such as declaring large hydro projects (>25 MW) as Renewable Energy sources, Tariff rationalization measures to bring down hydropower tariffs, Budgetary Support for Flood Moderation/ Storage Hydroelectric Projects (HEPs), Budgetary Support to the Cost of Enabling Infrastructure, i.e., roads/bridges, etc.
6. They are establishing Ultra Mega Renewable Energy Parks to provide land and transmission to RE developers for the large-scale installation of RE projects.

Solar Energy

Solar energy is the most abundant & cleanest energy resource on earth. India's total solar energy potential is 748 GWp (Giga Watt peak), as estimated by the National Institute of Solar Energy (NISE), based on the Waste Land Atlas of India 2010 data. The Government of India has recognized and identified solar energy potential, and there has been an increase of 3000 % in solar energy capacity during the past ten years. The government has set a target of achieving 500 GW of installed capacity from non-fossil fuel sources by 2030, which aligns with the Prime Minister's announcement at COP-26, held in Glasgow.

The government has taken several steps to promote solar energy in the country. These include:

1. Permitting Foreign Direct Investment (FDI) up to 100 percent under the automatic route,

2. Waiver of Inter-State Transmission System (ISTS) charges for inter-state sale of solar and wind power for projects to be commissioned by June 30, 2025,
3. Declaration of trajectory for Renewable Purchase Obligation (RPO) up to the year 2029-30,
4. Notification of standards for deployment of solar photovoltaic systems/devices,
5. Setting up of Project Development Cell for attracting and facilitating investments,
6. Standard Bidding Guidelines for a tariff-based competitive bidding process for procuring Power from Grid-Connected Solar PV and Wind Projects.
7. The government has issued orders that power be dispatched against a Letter of Credit (LC) or advance payment to ensure timely payment by distribution licensees to RE generators.
8. Notification of Promoting Renewable Energy through Green Energy Open Access Rules 2022.
9. Notification of "The electricity (Late Payment Surcharge and related matters) Rules 2002 (LPS rules).
10. Launch of Green Term Ahead Market (GTAM) to facilitate the sale of Renewable Energy power, including Solar power, through exchanges.

The ISA was launched jointly by India and France after COP21 in Paris. ISA is India's first international and inter-governmental organization headquartered in India.

The International Solar Alliance is an international organization with 109 member countries. It works with governments to improve energy access and security worldwide and promote solar power as a sustainable transition to a carbon-neutral future. ISA's mission is to unlock US$1 trillion of investments in solar by 2030 while reducing the cost of the

technology and its financing. The Sixth Assembly of the International Solar Alliance was held in New Delhi from October 30 to November 2, 2023.

Production Linked Incentive Schemes

Keeping in view India's vision of becoming 'Atmanirbhar,' Production Linked Incentive (PLI) Schemes for 14 key sectors have been announced with an outlay of Rs. 1.97 lakh crore (over US$26 billion) to enhance India's manufacturing capabilities and exports.

The fourteen sectors are as follows:
(i) Mobile Manufacturing and Specified Electronic Components,
(ii) Critical Key Starting Materials/Drug Intermediaries & Active Pharmaceutical Ingredients,
(iii) Manufacturing of Medical Devices
(iv) Automobiles and Auto Components,
(v) Pharmaceuticals Drugs,
(vi) Specialty Steel,
(vii)Telecom & Networking Products,
(viii)Electronic/Technology Products,
(ix) White Goods (ACs and LEDs),
(x) Food Products,
(xi) Textile Products: MMF segment and technical textiles,
(xii) High-efficiency solar PV modules,
(xiii) Advanced Chemistry Cell (ACC) Battery and
(xiv) Drones and Drone Components.

The PLI Schemes aim to attract investments in critical sectors and cutting-edge technology, ensure efficiency, bring economies of size and scale in the manufacturing sector, and make Indian companies and manufacturers globally competitive. These schemes have the potential to significantly boost production, increase manufacturing activities, and

contribute to economic growth over the next five years or so. As of July 30, 2024, 755 applications have been approved across 14 sectors. Investment of Rs. 1.23 lakh crore was realized till March 2024, resulting in employment generation of around eight lakhs.

The criteria employed in selecting beneficiaries under PLI Schemes include but are not limited to willingness to make required investments, production of approved product categories under respective schemes, eligible net worth, domestic value addition, etc., as mentioned in Scheme Guidelines issued by the implementing Ministries/ Departments.

The Ministry of Heavy Industries is implementing the PLI Scheme for Automobile and Auto Components (PLI-Auto) and the PLI Scheme on the National Programme on Advanced Chemistry Cell (PLI-ACC) Battery Storage. Under both Schemes, expenditures incurred by the beneficiary firms on Research and Development are considered eligible investments to enable them to adopt the latest technology in implementing their projects.

Information Technology (IT) and Software Services

Over the past decade, information and computer-related services have become increasingly significant, with their share of total GVA rising from 3.2 percent in FY13 to 5.9 percent in FY23. Despite the pandemic-induced economic downturn, this sector achieved a real growth rate of 10.4 percent in FY21. The COVID-19 pandemic expedited the advancement and uptake of technology-driven solutions, fuelling the growth of this sector.

In the last decade, the industry has grown many folds in revenue terms, and its relative share of India's GDP is around 7% in FY 2023-24. The Indian IT/ ITeS industry has a leading position globally and has been

progressively contributing to the growth of exports and the creation of employment opportunities. India's IT-BPM industry (excluding e-commerce) is expected to reach USD 254 billion, including around 200 USD Billion exports in FY 2023-24 (E). The IT-ITeS Industry has also created significant employment opportunities and is estimated to employ 5.43 million professionals, an addition of 60,000 people over FY 2022-2023 (E). Women employees account for 36% of the total industry employee base. The flourishing growth of IT services has also supported the expansion of Global Capability Centers (GCCs) and the tech startup ecosystem in India.

Several initiatives are in place to bridge the talent gap. Conceived as a first-of-its-kind initiative, '**Future Skills PRIME**' is a joint initiative by the Ministry of Electronics & Information Technology (MeitY) and NASSCOM to create an up-skilling and reskilling ecosystem in focus areas to facilitate the continuous enhancement of IT professionals' skills in line with their aspirations and aptitude.

The government initiated a **Digital Skilling Program** in emerging and future technologies, aiming to skill, reskill, and upskill one crore students through internships, apprenticeships, and employment opportunities.

Pradhan Mantri Kaushal Vikas Yojana (PMKVY 4.0) focuses on skill development among youth, offering training in cutting-edge fields such as Industry 4.0, AI, robotics, mechatronics, Internet of Things, and drones.

To further leverage technological advancements, the government has envisioned the India AI program as a mission-centric approach to leveraging transformative technologies to boost inclusion, innovation,

and adoption for social impact. The Union Cabinet has approved an allocation of over ₹10,300 crores towards the comprehensive IndiaAl Mission to democratize access to Al innovation pillars and ensure the global competitiveness of India's Al ecosystem.

This mission drives responsible and inclusive growth of India's AI ecosystem through the following seven pillars:

1. IndiaAI Compute Capacity: This pillar focuses on creating a scalable AI computing ecosystem with over 10,000 GPUs through public-private partnerships to meet the demands of India's growing AI startups and research community. An AI marketplace will offer AI as a service and a pre-trained model, serving as a central hub for essential AI resources.
2. IndiaAI Innovation Centre: This center is dedicated to developing and deploying Indigenous Large Multimodal Models (LMMs) and domain-specific foundational models in critical sectors.
3. IndiaAI Datasets Platform: This platform aims to streamline access to high-quality non-personal datasets for AI innovation. A unified data platform will provide seamless access to these datasets for Indian startups and researchers.
4. IndiaAI Application Development Initiative: This initiative promotes AI applications in critical sectors by addressing problem statements from Central Ministries, State Departments, and other institutions. It focuses on developing, scaling, and promoting the adoption of impactful AI solutions with the potential for large-scale socio-economic transformation.
5. IndiaAI FutureSkills: This pillar aims to reduce barriers to entry into AI programs by increasing AI courses at the undergraduate, master's, and Ph.D. levels. Data and AI Labs will be established in Tier 2 and 3 cities to offer foundational courses.

6. IndiaAI Startup Financing: This pillar supports and accelerates deep-tech AI startups by providing streamlined access to funding for innovative AI projects.
7. Safe & Trusted AI: This pillar focuses on ensuring the responsible development, deployment, and adoption of AI by implementing Responsible AI projects, developing indigenous tools and frameworks, self-assessment checklists for innovators, and other guidelines and governance frameworks.

The first edition of the India AI was released in October 2023 as part of building 'AI in India and AI for India.'

Further, India is the founding member of the Global Partnership on Artificial Intelligence (GPAI), having joined the multi-stakeholder initiative in June 2020.

Under the Digital India program, initiated in July 2015 to transform India into a digitally empowered society and knowledge economy, various digital initiatives have been undertaken to deliver citizen-centric services. In FY 2023, the technology industry is estimated to have 5.4 Mn employees and a contribution of 53% to India's service exports. The Government of India has taken some significant initiatives to promote the IT/ ITeS sector in India. Both central and state governments in India have taken steps towards developing technology solutions to enable digital citizen services. The government plans to focus on cybersecurity, hyper-scale computing, artificial intelligence, and blockchain. With data costs of INR 10/GB ($0.12/GB), India has one of the world's lowest data costs and the second-highest number of internet subscribers in the world.

Pharma and Healthcare Industry

Drug and pharmaceutical exports increased by 8.36% from USD 2.13 billion in July 2023 to USD 2.31 billion in July 2024. The Indian Government has identified medical devices as a priority sector for the flagship 'Make in India' program and is committed to strengthening the manufacturing ecosystem. India is the fourth largest medical device market in Asia.

The Indian market relies heavily on imports, but exports have surged recently. The 'Atmanirbhar' Bharat mission is the impetus for India's vision of becoming a global manufacturing hub for medical devices. Recent initiatives, such as the Production Linked Incentive Scheme (PLI) and the Promotion of Medical Devices Parks Scheme, testify to this. These schemes have been constructed to incentivize large-scale manufacturing and build the infrastructure for developing manufacturing clusters within India.

To encourage domestic manufacturing of high-end medical devices to reduce import dependence and to boost domestic manufacturing, the Department of Pharmaceuticals, Ministry of Chemicals and Fertilizers has taken several measures, which are as follows:

1. Production Linked Incentive (PLI) scheme for promoting domestic manufacturing of Medical Devices (PLI MD) with a total financial outlay of Rs. 3,420 crore and tenure from FY 2020-21 to FY 2027-28. The economic incentive is given to selected companies at 5% on incremental sales of medical devices manufactured in India and covered under the four target segments of the Scheme for five (5) years. The four target segments are – (I) Radiotherapy, (II) Imaging Devices, (III) Anaesthesia, Cardio-respiratory & Critical Care, and (IV) Implants. 26 participants have been approved under the Scheme, of which 11 are MSMEs.

2. The Production Linked Incentive (PLI) scheme for Pharmaceuticals, with a financial outlay of Rs. 15,000 crores and tenure from FY 2020-21 to FY 2028-29, provides financial incentives to 55 selected applicants. This includes five selected applicants for In-Vitro Diagnostics (IVD) devices, of which four are MSMEs. The incentive period under the Scheme is six years.
3. The scheme Promotion of Medical Device Parks, with a total financial outlay of Rs. 400 crore and tenure from FY 2020-21 to FY 2024-25, provides for the maximum financial assistance of Rs. 100 crore each to 4 selected States/Union Territories for the creation of Common Infrastructure Facilities in the upcoming Medical Device Parks. Under the Scheme, final approval for financial assistance of Rs. 100 crore each has been given to the States of Himachal Pradesh, Madhya Pradesh, Tamil Nadu, and Uttar Pradesh.
4. The scheme Assistance to Medical Device Clusters for Common Facilities (AMD-CF) intends to provide financial incentives to medical device clusters to develop shared infrastructure facilities like medical device testing labs, E-waste treatment facilities, and logistic centers.
5. On March 2, 2024, 27 greenfield bulk drug park projects and 13 greenfield manufacturing plants for medical devices were virtually inaugurated.
6. The PLI scheme envisages manufacturing 41 bulk drugs with a total outlay of Rs. 6,940 cr. during the tenure of the Scheme from 2020-21 to 2029-30

E-Commerce and Fintech Industry

The Trade Connect e-Platform (https://trade.gov.in) is a new digital initiative to transform the landscape of international trade for Indian exporters, especially MSMEs (Medium, Small, and Medium Enterprises). The platform, developed in collaboration with key partners including

the Ministry of MSME, EXIM Bank, Department of Financial Services (DFS), and the Ministry of External Affairs (MEA), is set to address information asymmetry by offering exporters comprehensive support and resources.

The Trade Connect e-platform serves as a one-stop solution, providing exporters with near real-time access to critical trade-related information while seamlessly connecting them to crucial government entities such as the Indian Missions abroad, the Department of Commerce, Export Promotion Councils, and other trade experts. Whether a seasoned exporter or a new entrant, the platform is designed to assist businesses at every stage of their export journey. This e-platform shall connect more than 6 Lakh IEC holders, over 180 Indian Mission officials, and over 600 Export Promotion Council Officials, besides the officials from DGFT, DoC, banks, etc.

Government e-Marketplace (GeM)

The procurement of Government e-Marketplace (GeM) in FY 2024-25 has already reached ₹1,92,433 Crore as of August 8, 2024, which is approx. 136 percent (%) growth over the same period in the last fiscal year is well poised to set new records in FY 2024-25. The procurement of Services on GeM has accelerated, with the Gross Value Merchandise (GMV) of services reaching ₹3.91 lakh crore since its inception. In FY 2024-25, service procurement on GeM has already reached ₹80,493 crore. The platform has registered a 100% year-on-year growth in the last three fiscal years, fulfilling 62.86 Lakh orders worth approx. ₹ 4.03 Lakh Crore in GeM GMV in FY 2023-24.

So far, more than 1.5 Lakh Government buyers are interacting with and procuring goods and services from approximately 23 Lakh sellers and service providers across India in 11,523 product and 327 service categories, sans intermediaries.

Since its launch on August 9, 2016, GeM has facilitated the procurement of common-use goods and services by various central/ State Ministries/ Departments, Public Sector Enterprises (PSU), Autonomous Bodies, Panchayats, and Cooperative Societies. The genesis of GeM stems from Prime Minister Narendra Modi's visionary approach to leveraging the digital public infrastructure to usher in a cashless, contactless, and paperless unified national procurement portal.

As part of its ongoing commitment to the Digital India vision, the Ministry of Electronics and Information Technology (MeitY) has launched the third phase of its capacity-building initiatives. These initiatives focus on critical areas such as Digital Public Infrastructure, Contract and Procurement Management, the Application of AI and ML, managing large digital transformation projects, Digital Governance, and Data Management. To enhance the capabilities of officials at both central and state levels, a series of specialized training programs are being conducted across the country.

In a historic move, under India's Presidency, the G20 Digital Economy Ministerial reached a groundbreaking consensus on effectively shaping the Digital Public Infrastructure (DPI) of the future. The G20 has collectively adopted DPI. They also agreed to a G20 Framework for DPIs, which consists of various components of DPI and suggested principles for developing and deploying DPIs. All G20 members acknowledged the need for a multi-stakeholder approach to financial and technical assistance for countries in the Global South. In this regard, the G20 unanimously welcomed the Indian Presidency's voluntary initiative of the One Future Alliance that seeks to support the needs of the developing countries for DPI.

The Union government is creating robust, transparent, and efficient systems to strengthen financial markets with advanced technologies and regulatory frameworks. Bharat's fintech revolution is widespread, and one can witness it right from the moment of their arrival at the airport to street food and shopping experiences. "In the last ten years, the industry has received a record investment of more than 31 billion USD and witnessed startup growth of 500 percent.

The trinity of Jan Dhan, Aadhaar, and Mobile has broken down the mentality of 'Cash is King' and made way for approximately half of the world's digital transactions to take place in India. India's UPI has become a major example of Fintech in the world," the Prime Minister said, adding that it has enabled 27 X 7 banking services in every village and city in all weather conditions.

Fintech has played an impactful role in denting such a system and is credited with the emergence of transparency. He said that digital technology has introduced transparency in India and gave the example of the implementation of Direct Benefit Transfer used in hundreds of government schemes, which has prevented leakages in the system. "Today, people can see the benefits of aligning with the formal banking system."

Fintech has made access to credit easy and inclusive. For example, the PM SVANidhi scheme has enabled street vendors to avail of

collateral-free loans and further expand their business with the help of digital transactions. Now, people can easily access share markets, mutual funds, investment reports, and open demat accounts.

Telecom Industry

The Production Linked Incentive (PLI) Scheme for Telecom and Networking Products and Large Scale Electronic Manufacturing of Electronics have led to a significant increase in production, employment generation, economic growth, and exports in the country.

Within three years of the Telecom PLI scheme, the Scheme has attracted an investment of Rs 3,400 crore; the telecom equipment production has exceeded the milestone of Rs 50,000 crore, with exports totaling approximately Rs 10,500 crore, creating more than 17,800 direct jobs and many more indirect jobs. This milestone underscores the robust growth and competitiveness of India's telecom manufacturing industry, driven by government initiatives to promote local production and reduce import dependency. The PLI scheme aims to enhance domestic manufacturing capabilities and make India a global hub for telecom equipment production. The Scheme also offers financial incentives to manufacturers based on their incremental sales from products manufactured in India.

The Production Linked Incentive Scheme for Large Scale Electronic Manufacturing of Electronics covers the manufacture of mobile phones and their components. As a result of this PLI scheme, both the production and export of mobile phones from India have picked up considerably. India became a large importer of mobile phones in 2014-15, when only 5.8 crore units were produced in the country, while 21 crore units were imported; in 2023-24, 33 crore units were produced in India, and only 0.3 crore units were imported and close to 5 crore units were exported. Mobile phone exports have increased from Rs 1,556

Crore in 2014-15 and just Rs 1,367 crore in 2017-18 to Rs 1,28,982 crore in 2023-24. The import of mobile phones was valued at Rs 48,609 crore in 2014-15 and dropped to just Rs 7,665 crore in 2023-24. India has been importing telecom gear for many years, but the balance has changed due to the Make-in-India and PLI schemes, leading to the production of equipment valued at over Rs 50,000 crore.

Key Highlights– Telecom

Industry Growth: The telecom equipment manufacturing sector has demonstrated exceptional growth, with total sales exceeding Rs 50,000 crores by PLI companies. Telecom & Networking Products sales by PLI beneficiary companies in FY 2023-24 have increased by 370% vis-a-vis Base Year (FY 2019-20).

Job Creation: The initiative has contributed to economic growth and generated substantial employment opportunities across the value chain, from manufacturing to research and development, creating 17,800+ direct jobs and many more indirect jobs.

Reduced Import Dependency: By encouraging local production, the PLI scheme has significantly reduced the country's reliance on imported telecom equipment, resulting in import substitution of 60%. India has become almost self–reliant in Antennae, GPON (Gigabit Passive Optical Network), and CPE (Customer Premises Equipment). Reducing import dependency has thereby enhanced national security and fostered self-reliance.

Global Competitiveness: Indian manufacturers increasingly compete globally, offering high-quality products at competitive prices.

Telecom equipment includes intricate items like radios, routers, and network equipment. Furthermore, companies are permitted by the government to avail benefits for producing 5G equipment. 5G Telecom equipment manufactured in India is exported to North America and Europe.

As a result of the PLI Scheme for Telecom and Networking Products and other related initiatives run by both DoT and MeitY, the gap between telecom imports and exports has reduced significantly. The total value of goods (both telecom equipment and mobiles put together) exported is over Rs 1.49 lakh crore as against imports of over Rs 1.53 lakh crore in FY 23-24.

In fact, over the last five years, the trade deficit in telecom (both telecom equipment and mobiles put together) has reduced from Rs 68,000 crore to Rs 4,000 Crore, and both the PLI Schemes have started to make Indian manufacturers globally competitive, attract investment in the areas of core competency and cutting-edge technology; ensure efficiencies; create economies of scale; enhance exports and make India an integral part of the global value chain. It has transformed India's export basket from traditional commodities to high-value-added products.

IT Hardware Manufacturing

The Union Cabinet, May 2023, approved the Production Linked Incentive Scheme 2.0 for IT Hardware with a budgetary outlay of Rs. 17,000 crore. The salient features of the schemes are:

- PLI Scheme 2.0 for IT hardware covers laptops, tablets, all-in-one PCs, servers, and ultra-small form factor devices
- The budgetary outlay of the Scheme is Rs. 17,000 crore
- The tenure of this Scheme is six years
- Expected incremental production is Rs. 3.35 Lakh crore
- The expected incremental investment is Rs. 2,430 crore
- Expected incremental direct employment is 75,000

India is emerging as a trusted supply chain partner for all global majors. Large IT hardware companies have shown keen interest in establishing manufacturing facilities in India. This is further supported by a strong IT services industry with good demand within the country. Most majors would like to supply domestic markets within India from a facility situated in India and make India an export hub.

Applications from 27 IT hardware manufacturers have also been approved. The IT hardware of well-known brands such as Acer, Asus, Dell, HP, Lenovo, etc., is being manufactured in India. The expected outcomes of this approval over the tenure of the Scheme are as follows:

- Employment: around two lakhs
- About 50,000 (direct) and about 1.5 lakh (indirect)
- Value of IT hardware production: 3 lakh 50 thousand Crore rupees (42 billion US dollars)
- Investment by companies: 3,000 crore rupees (360 million US dollars)

Further, a new MoU paves the way for local manufacturing of HP laptops, desktops, and all-in-one PCs, boosting India's electronics sector. Starting January 2025, Padget will manufacture 20 lakh HP laptops,

desktops, and PCs annually at its 3 lakh sq ft facility in Chennai, creating 1,500 direct jobs.

Energy Security

The Union Budget 2024-25 focused on "Energy Security". The finance minister said that, in line with the announcement in the interim budget, PM Surya Ghar Muft Bijli Yojana has launched the installation of rooftop solar plants to enable one crore households to obtain free electricity of up to 300 units every month. The Scheme has generated a remarkable response, with over 1.28 crore registrations and 14 lakh applications. Nuclear energy is expected to form a significant part of the energy mix for Viksit Bharat. The other energy security-related announcements made under the budget are:-

- A policy document on 'Energy Transition Pathways' to balance the imperatives of employment, growth, and environmental sustainability will be released.
- A policy for promoting pumped storage projects for electricity storage will be created.
- The government will partner with the private sector to develop Bharat Small Modular Reactors and newer technologies for nuclear energy and to establish Bharat Small Reactors.
- A joint venture between NTPC and BHEL is proposed to set up a full-scale 800 MW commercial plant using Advanced Ultra-Supercritical (AUSC) technology.
- Appropriate regulations must be implemented to transition 'hard to abate' industries from the current 'Perform, Achieve, and Trade' mode to the 'Indian Carbon Market' mode.
- Capital goods for manufacturing solar cells and panels are exempted from customs duty.

Industry 4.0

Industry 4.0 marks a transformative phase in manufacturing by integrating cyber-physical systems, AI, and IoT technologies. The goal is to create smart factories where machines, systems, and humans interact seamlessly in real-time, leading to higher efficiency, minimized waste, and optimized resource usage.

India's approach under Industry 4.0, mainly through the SAMARTH Udyog Bharat 4.0 initiative, focuses on making Indian industries globally competitive by balancing high automation with cost-efficient, human-empowered smart technologies. Establishing centers like the C4i4 Lab Pune supports innovation and adopting these advanced technologies to boost the global standing of Indian manufacturing.

Conclusion

The combination of robust government support, international partnerships, and strategic investments in electric vehicles, renewable energy, and semiconductors makes India a powerhouse for sustainable and advanced technologies. As the country continues strengthening its electronics manufacturing capabilities and fostering an innovation-driven ecosystem, it stands poised to play a pivotal role in the global economy. By reducing dependency on imports, nurturing home-grown talent, and advancing in new-age technologies, India is setting the stage for long-term growth, increased exports, and job creation, ensuring its leadership in the future of technology and manufacturing.

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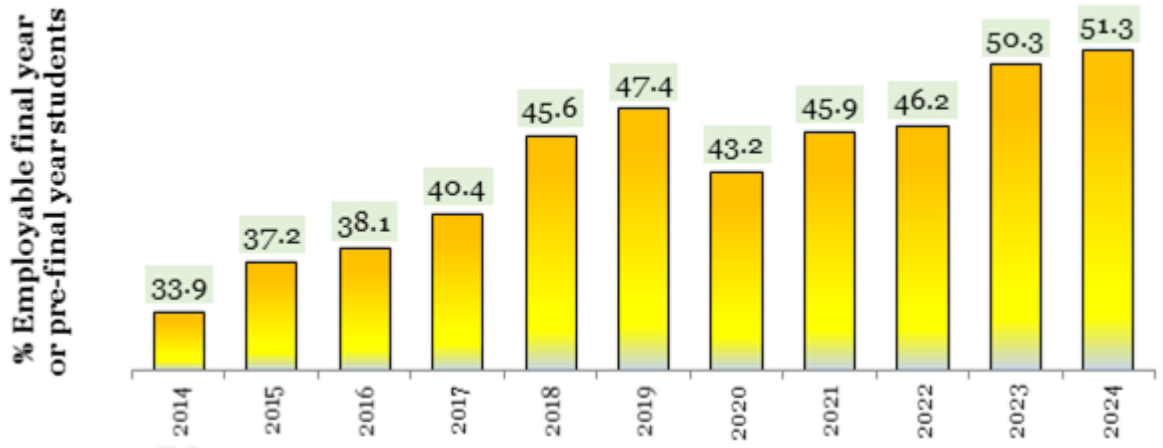
India's Skill Development Journey: Progress and Challenges

With one of the youngest populations, a median age of 28, India can harness its demographic dividend by nurturing a workforce that is equipped with employable skills and prepared for the needs of the industry. Sixty-five per cent of India's fast-growing population is under 35, and many lack the skills needed by a modern economy. However, it must be noted that the percentage has improved from around 34 per cent to 51.3 percent in the last decade. The Indian government has been actively working to enhance skilling and employment opportunities across the nation, recognizing the pivotal role of human capital in driving economic growth and innovation. The document highlights such efforts in detail.

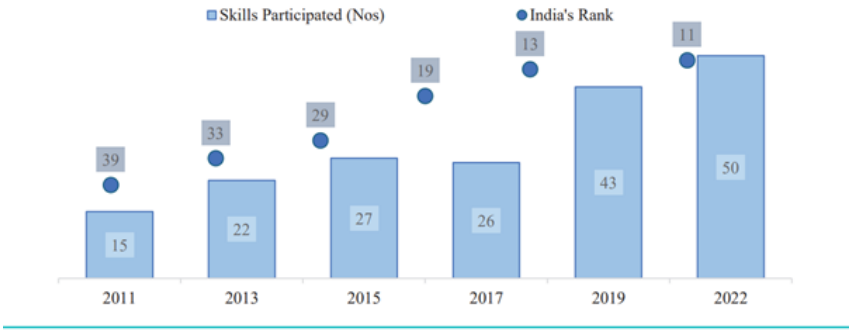


Source: India Skills Report, Wheebox

The 2022-23 Annual Report of the Ministry of Skill Development & Entrepreneurship (MSDE) underscores the challenges in this sector, emphasizing the need for comprehensive improvements in the skilling and entrepreneurship ecosystem within the country.

The recent launch of the Skill India Digital platform aimed at achieving skilling, education, employment, and entrepreneurship ecosystem marks another step towards the "ease of acquiring skill" in India. The rise in the number of candidates undergoing skill development through the Government's flagship programmes has underlined the thrust to 'Skill India'. The across-the-board progress in skilling has manifested in India's rising position in WorldSkills Competitions, held every two years.

Graph: India at WorldSkills Competition



Source: MSDE Annual Report 2022-23

This sets the stage to discuss various government schemes and initiatives aimed at bolstering skill development and bridging the employability gap among India's burgeoning young population.

Focus on Employment and Skilling in Budget 2024

Under the Union Budget 2024-25, a notable highlight was the announcement of a **new centrally sponsored scheme under the Prime Minister's package**, in collaboration with state governments and industry. This scheme aims to skill 20 lakh youth over five years and upgrade 1,000 Industrial Training Institutes (ITIs).

Additionally, the announcement was made to revise the **Model Skill Loan Scheme** to facilitate loans up to ₹7.5 lakh with government-backed guarantees, which will benefit 25,000 students annually. For those

ineligibles for existing schemes, financial support for **loans up to ₹10 lakh for higher education** in domestic institutions will be provided, with e-vouchers offering annual interest subvention of 3% for 1 lakh students each year.

This revised Model Skill Loan scheme was launched by Hon'ble Minister of State (I/C), Ministry of Skill Development and Entrepreneurship (MSDE), Shri Jayant Chaudhary on 25th July, 2024.

Government's Skill Development Initiatives

National Policy on Skill Development & Entrepreneurship (NPSDE)

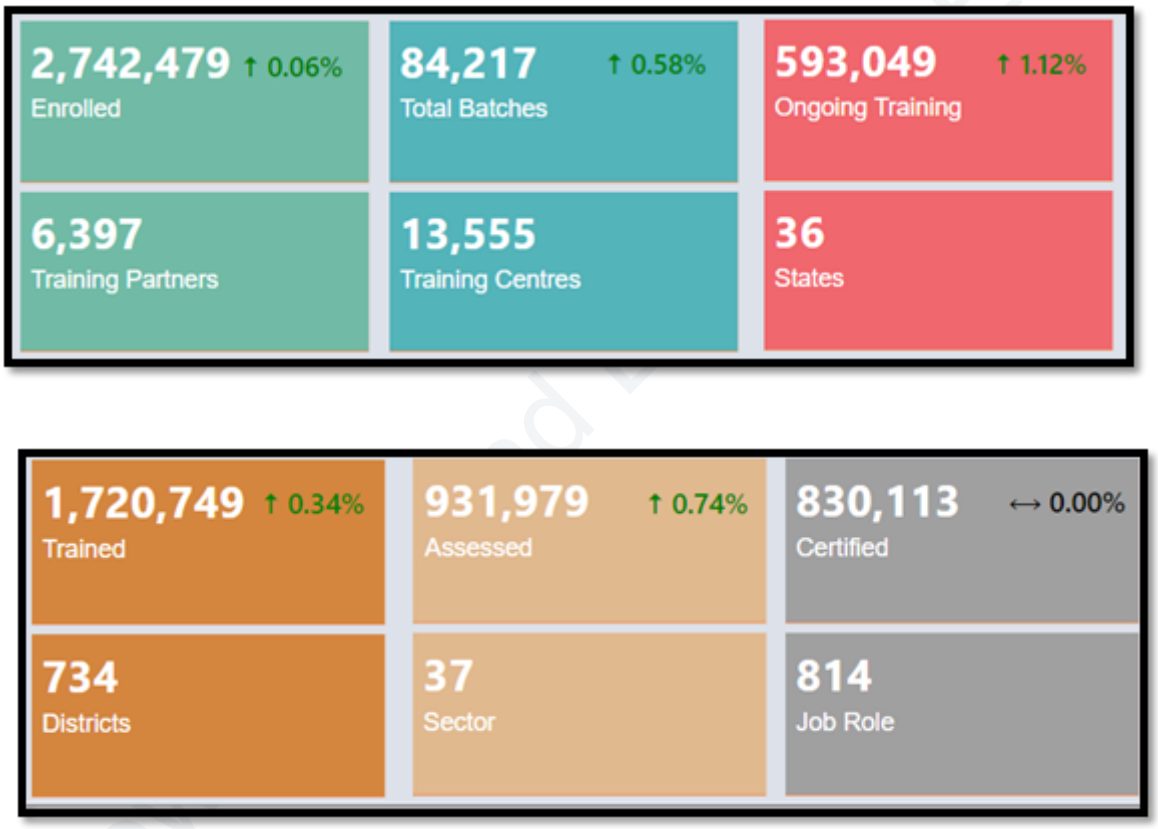
The NPSDE focuses on bridging gaps, improving industry engagement, establishing a quality assurance framework, leveraging technology, and expanding apprenticeship opportunities. Prioritising equity, it targets marginalised groups and emphasises skill development and entrepreneurship for women. In the entrepreneurial domain, the policy educates potential entrepreneurs, facilitates mentorship, fosters innovation, enhances ease of doing business, and promotes social entrepreneurship. This, in combination with the National Education Policy (NEP), holds tremendous potential for bridging the education-employment gap in India.

Pradhan Mantri Kaushal Vikas Yojana

Since its inception in 2015, PMKVY has emerged as a cornerstone initiative in India's skill development landscape. To date, the scheme has successfully trained 1.42 crore individuals, with 1.13 crore received certification across its Short-Term Training (STT), Special Projects (SP), and Recognition of Prior Learning (RPL) components. Over 1,000 educational institutions across the nation have been integrated as Skill India Centres, bolstering accessibility to skill enhancement

opportunities. PMKVY has also been instrumental in introducing 119 new age and future skill courses spanning eight key sectors, ensuring alignment with evolving industry demands. One of PMKVY's notable achievements lies in its focus on gender inclusivity, evidenced by a significant rise in female participation. The proportion of women trained under the scheme has increased commendably, from 42.7% in FY16 to 52.3% in FY24.

PMKVY PROGRESS



Craftsmen Training Scheme (CTS)

The Craftsmen Training Scheme (CTS) plays a crucial role in vocational training across India, facilitated through a vast network of 14,955 Industrial Training Institutes (ITIs). Particularly noteworthy is the increasing participation of women in long-term skilling programs within ITIs and National Skill Training Institutes (NSTIs), rising from 9.8% in

FY16 to 13.3% in FY24. In addition to expanding access and enhancing participation, the Craftsmen Training Scheme has implemented a new Grading Mechanism for it is, known as the Data-driven Grading Methodology (DDGM), which utilizes parameters/information available on the NCVT MIS portal. Introduced from the session 2023-24 onwards, DDGM aims to standardize evaluation processes across it.

Jan Shikshan Sansthan (JSS)

Jan Shikshan Sansthan (JSS) plays a pivotal role in imparting skills to non/neo literates and individuals with a rudimentary level of education. From FY19 to FY24, JSS has successfully trained 26.36 lakh individuals, with 24.94 being certified. Further, to enhance its effectiveness, JSS has initiated capacity building measures, including the setting up of 30 Model JSS by upgrading laboratories with new-age equipment and training 150 trainers. JSS has prioritized the professional development of its staff, focusing on enhancing management capabilities and communication skills. These efforts aim to modernize facilities and improve training methodologies to better serve the evolving needs of learners. Notably, JSS has demonstrated a strong commitment to gender equality, with women comprising approximately 82% of the total beneficiaries

National Apprenticeship Promotion Scheme (NAPS)

The National Apprenticeship Promotion Scheme (NAPS) is aimed at fostering apprenticeship training across India. Since its inception, a total of 32.38 lakh apprentices have been engaged in various sectors. The NAPS portal has witnessed significant growth, with the number of registered establishments increasing from 17,608 in March 2017 to 2.21 lakh by March 2024, highlighting widespread industry participation and support. The participation of women has notably increased from 7.74% in 2016-17 to 20.77% in 2023-24, reflecting efforts to encourage more

women to pursue careers in diverse sectors. Furthermore, the scheme utilizes Direct Benefit Transfer (DBT) mechanisms under NAPS-2, facilitating the reimbursement of 25% of the apprentices' stipend (up to ₹1,500) directly into their bank accounts. As of March 2024, a total of ₹320.88 crore has been disbursed through 22.46 lakh transactions, ensuring timely financial support to apprentices and encouraging more establishments to participate actively in the program.

Entrepreneurship Training

Entrepreneurship training in India has been significantly bolstered by institutions like the National Institute for Entrepreneurship and Small Business Development (NIESBUD) and the Indian Institute of Entrepreneurship (IIE). From FY19 to FY24, NIESBUD alone has provided essential entrepreneurial training to 3.21 lakh beneficiaries. Similarly, IIE Guwahati has extended training and handholding services to 1.43 lakh individuals during the same period, fostering a supportive environment for budding entrepreneurs across various sectors.

Skill India Digital Hub platform

The Skill India Digital Hub platform, launched in August 2023, represents a convergence platform facilitating access to skilling, credit, and employment through AI/ ML technology. This initiative integrates a comprehensive array of skilling schemes along with 690 online courses and 1650 QP-based e-books, enhancing accessibility to educational resources essential for vocational training. Furthermore, the platform seamlessly incorporates various government initiatives and services such as eShram/EPFO/NCS, Udyam, DigiLocker, GatiShakti, UMANG, AgriStack, PLI Schemes, and ODOP, etc. Since its inception, the Skill India Digital Hub has garnered significant engagement, with over 60 lakh learners registered and 8.4 lakh app downloads.

Beyond the initiatives led by the Ministry of Skill Development and Entrepreneurship (MSDE), India has embarked on targeted skilling efforts across diverse sectors. Under the Jal Jeevan Mission, MSDE provides overall guidance for a multi-skilling course. Similarly, the PM Vishwakarma initiative focuses on both basic and advanced skill training for Vishwakarmas, incorporating modern toolkits. The Green Hydrogen sector sees the development of 50 new short-term qualifications for skilling, upskilling, and re-skilling. Furthermore, PM-JANMAN spearheads entrepreneurship and skill development among Particularly Vulnerable Tribal Groups (PVTGs), with NIESBUD and IIE conducting capacity-building programs. By March 2024, these efforts have already benefited 5,096 beneficiaries, with plans to reach 44,608 by 2025-26. Additionally, special skill provisions for Agniveers through MoUs with the Army, Navy, and Airforce ensure skill certification based on qualifications and experiential learning, facilitating post-service employment opportunities across various industries.

Latest Achievements

Some of the key achievements/ initiatives by this Ministry during the month of July, 2024 are as under:

1. Skill Loan Scheme: The Hon'ble Minister of State (I/C), Ministry of Skill Development and Entrepreneurship (MSDE), Shri Jayant Chaudhary launched the revised Model Skill Loan Scheme on 25th July, 2024 with the objective of providing easy access to advanced-level skill courses, which potentially pose a significant financial barrier for many deserving students and candidates to gain futuristic and in-demand industry skills. Under the new Model Skill Loan Scheme, the maximum eligible loan amount has been increased from Rs. 1.5 lakh to Rs. 7.5 lakh.

2. World Youth Skills Day: The Hon'ble Minister of State (I/C), MSDE, Shri Jayant Chaudhary, attended an open house, "Kaushal Samwaad", to

celebrate World Youth Skills Day, which is recognised globally by the United Nations. The day also commemorated the 10th year celebrations of the Skill India Mission.

3. Apprenticeship Training Status: The apprentices engaged during the current financial year 2024-25 stand at 2,77,036 as of 31st July 2024. The total number of apprentices undergoing training as of 31st July 2024 stands at 7.46 lakh. The total number of establishments engaging/engaged apprentices till 31st July 2024 stands at 47,311.

4. DBT Status: The number of apprentices participating through DBT is increasing steadily and there is an increase from July 2023 (1,72,537) till July 2024 (5,49,812). During the period (April to July), GoI share of stipend amounting to Rs 122.36 Crore has been disbursed to apprentices through DBT.

Skilling India at Global Standards

India's efforts in skilling at global standards are reflected through strategic initiatives such as the Skill India International Centers (SIIC) and partnerships facilitated through Government-to-Government (G2G) Memorandums of Understanding (MoUs). The establishment of 30 SIICs, as announced in the FY24 interim budget, marks a significant step towards enhancing India's global skilling footprint. Currently operational centers in Varanasi and SDI Bhubaneswar exemplify this initiative's early success, with plans finalized for seven more centers in the first phase.

Additionally, India has forged MoUs with prominent countries including Australia, Denmark, France, Germany, Japan, Qatar, UAE, and the UK for cooperation in Information Exchange, Standard Setting, Mutual Recognition of Qualifications, etc. Such partnerships not only enhance international mobility but also promote the recognition of

Indian qualifications abroad. Moreover, the establishment of NSDC International Limited in 2021, for ethical and transparent international recruitment of skilled Indians, drives the Skill India International Mission with a focus on priority sectors such as Information Technology, Construction, and Hospitality. Efforts include capacity building through 20 NSDC-affiliated training centers and language training at 12 centers, contributing to the deployment of over 26,000 skilled candidates across multiple countries.

Partnering with Industry for Skilling

Industry connection is crucial to any large-scale skilling programme, enabling contemporary relevance and employability and ascertaining demand to absorb the newly skilled workforce. In cognisance of this, the Skill India mission actively collaborates with the industry through National Skill Development Council (NSDC)-driven partnerships for skill development, reskilling, and upskilling. Until March 2024 (starting date to be added), 131 projects have been undertaken by NSDC, with 62 corporate organisations benefiting over 3.10 lakh persons across the country, including 42 aspirational districts.

Launched in 2021, the **Skill Impact Bond** leverages an innovative and results-based finance mechanism - Development Impact Bond99 model to attract private sector funds and expertise for skill development, job placements, and retention. This initiative by NSDC and its coalition partners100 targets training 50,000 youth, ensuring at least 60 per cent are female, through selected and monitored NSDC-affiliated training partners over four years. Between November 2021 and March 2024, 29,365 candidates have been enrolled over five cohorts, 23,464 have been certified, 19,209 have been placed and 13,853 reported job retention. The program has reported 74 per cent women enrolment so far.

Further, the **Directorate General of Training (DGT)** has initiated several impactful collaborations under its Industry Partnerships framework, enhancing vocational training and industry readiness across diverse sectors. Through the Flexi MoU Scheme with prominent industry partners like Maruti Suzuki India Limited, NMDC Chhattisgarh, and Toyota Kirloskar Motor Pvt. Ltd., approximately 9,600 trainees have been trained since March 2019. The Dual System of Training (DST) provided first hand workplace experience to over 37,865 trainees from 978 ITIs during the 2022 session. Collaborations with tech giants including IBM, Microsoft, Cisco, Adobe, and Amazon Web Services have prepared more than 21.5 lakh trainees for Industry 4.0 between November 2019 and March 2024. Additionally, NSTIs have conducted skilling initiatives with ISRO, ONGC, Indian Railways, Naval Ship Repair Yard, Naval Ship Dockyard, and BHEL, training about 1,400 participants in FY24. DGT continues to upgrade NSTIs/ITIs infrastructure with partners like Dassault, Pidilite, Jaguar, Skoda, HAL, and Siemens, ensuring industry-relevant skills development across sectors.

Conclusion

In conclusion, while India faces significant challenges with its skill gap, the government's proactive initiatives have demonstrated tangible progress towards bridging this divide. Programs like Pradhan Mantri Kaushal Vikas Yojana, Craftsmen Training Scheme, and National Apprenticeship Promotion Scheme have collectively trained millions, fostering inclusivity and empowering women in traditionally underrepresented sectors. The launch of the Skill India Digital Hub and establishment of Skill India International Centers further illustrate India's commitment to leveraging technology and global partnerships for skill enhancement at par with international standards. These efforts not only address current talent shortages across industries but also

prepare India's youth for the demands of a rapidly evolving global economy. Moving forward, sustained investment and collaboration between government, industry, and educational institutions will be crucial to ensuring that every young Indian has access to quality skill development opportunities, thus realizing the full potential of India's demographic dividend.

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"Be the change you wish to see in the world"

Mahatma Gandhi

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The Evolution of Carbon Markets: A Global Overview and India's Green Credit Initiative

A carbon market is a way to trade greenhouse gas emission credits to help achieve climate goals and reduce emissions. It is a type of carbon pricing mechanism that works by limiting the number of emissions allowed.

The United States played a pivotal role in the 1970s with the introduction of the sulphur dioxide (SO2) allowance trading programme, the first market-based regulation aimed at reducing air pollution and addressing environmental issues. This initiative set the stage for the development of similar programs, including the Montreal Protocol (1987), which established an early international precedent for trading emissions permits to combat ozone depletion. The foundation for early carbon markets was laid by article 4.2(a) of the UNFCCC (Convention), which allowed Parties to implement emission reduction policies jointly.

The Conference of the Parties or COP of the UNFCCC adopted a legal instrument in this regard - the Kyoto Protocol (KP) in 1997. The KP established legally binding GHG emissions reduction targets for 38 industrialized countries and Economies in Transition (EIT) – Annex-B Parties to the KP. Market-based mechanisms under the KP allowed

Parties to meet part of their Kyoto caps with 'Kyoto units' bought from other Parties. It had three mechanisms:

1. Clean Development Mechanism (CDM) leading to Certified Emission Reductions (CERs) from mitigation projects in developing countries.
2. The joint implementation creates emission reduction units (ERUs), achieved by projects in countries with emission caps.
3. International Emissions Trading (IET) enabled the trading of Assigned Amount Units (AAUs) and other Kyoto units between countries with emission caps.

These mechanisms laid the foundation for the first-ever effort in the international carbon market, though its initial implementation faced challenges like limited participation and complex rules. However, after the launch of the European Union Emission Trading Scheme (EU-ETS) in 2005, the significance of the carbon market was realized for the first time. It was around the mid-2000s that EU-ETS started functioning, and Voluntary Carbon Markets began to gain traction. The fungibility of the credits with EU-ETS helped the Kyoto Protocol to establish a more robust carbon price in its first commitment period (2008-2012).

The KP's second commitment period (2013-2020) was adopted in December 2012, while the EU-ETS entered its third phase in 2013-2020. The cumulative inflow of international credits led to a large surplus in the European carbon market and undermined the carbon price incentive; for example, prices fell from €15/tCO2e in 2011 to a price range of €3 - €8/ tCO2e in the 2013 - 2015 period. The EU decided not to allow CERs and ERUs from KP to be compliance units within the EU-ETS and made exchanging the Kyoto units for EU-ETS emission allowances mandatory. The second phase of the KP's carbon markets failed mainly due to the non-participation of some major developed economies and due to the

non-interchangeability of the Kyoto credits with EU-ETS. With the end of the KP in 2020, the CDM also dried up and was replaced by the unregulated buyers and sellers of the carbon market, the VCM.

The Paris Agreement, adopted in December 2015, provides countries with the option to voluntarily cooperate to achieve higher ambition in their NDCs through a unified global carbon market.

a. Article 6.2 calls for 'voluntary cooperative approaches' at the bilateral level involving the use of Internationally Transferred Mitigation Outcomes (ITMOs) to meet NDCs, promote sustainable development, and ensure environmental integrity and transparency while avoiding double counting.

b. Article 6.4 defines an international mechanism to issue emission credits against mitigation outcomes. Thus, Article 6.4 of the Paris Agreement mechanism became the successor to the Kyoto Protocol's CDM. If authorized by the host country, the emission credits (or Emission Reductions) generated by mitigation activities become ITMOs. Another country can use them to fulfill its NDC or for other mitigation purposes, and the corresponding adjustment in the origin country is called for to avoid any double counting. Negotiations are still ongoing on the implementation of Articles 6.2 and 6.4.

To bolster this effort and encourage eco-friendly practices, the Ministry of Environment, Forest and Climate Change introduced two pioneering programs: the Green Credit Programme (GCP) and the Ecomark Scheme. The GCP is an innovative market-based mechanism that encourages individuals, communities, private sector industries, and companies to engage in voluntary environmental positive actions by issuing green credits.

Implementation and governance: According to the Green Credit Rules, 2023, notified in October 2023, GCP shall be implemented through a phased and iterative approach. The initial phase focuses on voluntary tree plantation on degraded land, wasteland, watershed, etc., under the control and management of the Forest departments. The governance structure of GCP includes the Steering Committee members from concerned ministries, experts, and institutions. Indian Council of Forestry Research and Education (ICFRE) is designated as the GCP administrator and is responsible for the implementation and management of GCP. GCP's digital processes include a dedicated web platform and a green credit registry for streamlining operations. Registration, accounting, and green credit issuance monitoring ensure the transparency and accountability of GCP. The generation of green credits under Green Credit Rules, 2023, is independent of the carbon credit under the Carbon Credit Trading Scheme, 2023.

Primary Source : (GOI; Economic Survey 2024)

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India: The Growing Hub for Global Capability Centres (GCCs)

Global Capability Centres (GCCs) are offshore facilities that help multinational corporations (MNCs) manage their business operations. They are also known as Global In-house Centres (GICs) Global Capability Centres (GCCs) are fully owned and integrated hubs typically established in talent-rich locations to build significant value and intellectual property (IP) using collaborative, distributed teams.

In the last couple of years, more than 150 multinationals have set up their GCCs in India. Starting with the humble beginning of offshoring by Texas Instruments by setting up its office in Bengaluru in 1985, India has come a long way to being at the epicentre of GCC growth. In the 1990s, other companies followed suit, and many airlines and technology companies started their operations in India. These were called 'captive centres' earlier and have now come to be addressed as GICs (global in-house centres) or GCCs. In 2012, about 760 GCCs were operating out of India. In 2016, that number went over 1000, and as of March 2023, India houses over 1,600 GCCs.

Various agencies have projected that the number of GCCs would grow in the coming years, creating jobs as well. According to a PwC report, by 2028, the country is poised to have 2100 GCCs, with the market size of the centres touching USD 90 billion. As per a study by Wizmatic, GCCs presently employ 32 lakh people, primarily engineers and scientists. They generated a combined revenue of USD 46 billion in 2023 and are estimated to generate a total revenue of USD 121 billion by 2030, roughly 3.5 per cent of India's GDP. Out of this, USD 102 billion will represent export earnings.

GCCs provide bespoke services in operation, product development and innovation. Today, GCCs operate across all IT, BPO, engineering, and software product development service lines, delivering complex work that requires a significant understanding of business context and imperatives. They have made a mark in key industry verticals such as banking and financial services, software, telecom and semiconductors, with a growing concentration in aerospace, automotive, oil and gas, healthcare and pharma.

Strategic interventions under various initiatives like 'Digital India' and policies for easing doing business have streamlined online approvals and licensing processes for GCCs. Initiatives like streamlined tax regulations and compliance procedures for foreign companies for setting up GCCs, flexible labour laws, and single- window clearance systems for faster approvals have eased the business process. Improved digital infrastructure (high-speed internet, data centres) has been a boon for GCC operations.

Various States are undertaking a multi-pronged approach to boost the GCC ecosystem by identifying high-potential industries. For example, State Governments of Karnataka, Telangana and Tamil Nadu have launched research and development (R&D) policies to expand the GCC landscape in sectors such as auto and electric vehicles, electronics, pharma and life sciences in the states. These policies aim to develop innovation hubs in the States by leveraging the existing industry presence and the academic and R&D ecosystem. For instance, Telangana contributes to over 30 per cent of India's pharma production and is home to more than 1,000 life sciences companies and over 200 FDA-approved sites for producing innovative and generic medicines. The Karnataka Digital Economy Mission(KDEM) aims to increase the State's contribution to India's digital economy to USD 300 billion by 2026 by enabling holistic growth of the tech sectors and start-ups by

deepening partnerships with industry players and developing tech clusters beyond the State's capital to achieve higher contribution. Consequently, leading technology companies have started operations in Mysuru, Mangalore and Hubballi clusters, generating employment for more than 5,000 people.

Partnership with startups to support global technology needs: As per a NASSCOM report, GCCs are leveraging India's vital engineering research and development service provider community, its mature start-ups, and its peer-GCC ecosystem. They have established more than 15 incubators, over 40 accelerators, and multiple partner programmes to drive collaboration with Indian start-ups. Healthcare and pharma GCCs have witnessed an increased partnership with start-ups and academia to access newer technology. The GCCs have explored various forms of collaboration, such as innovation labs, hackathons and start-up incubators.

GCCs are increasingly evaluating tier-II towns to expand their operations, influenced by the reverse migration seen during the pandemic and the cost arbitrage offered by such relatively under-penetrated markets. The recent thrust on infrastructure development in these cities has also added to their appeal. As per a CBRE research report, during H1 of 2023, about 22 percent of GCC centres were set up in tier-II cities, driven by the availability of existing and fresh talent.

While US and Europe-based MNCs have been establishing their capability centres for a long time, international players from the Asia Pacific region, especially Japan and South Korea, have begun setting up their R&D/ innovation centres in India over the past few years. Although other countries with GCC presence have emerged recently, India remains a GCC favourite in a highly competitive global environment due to its ample talent endowment and cost advantage.

Today, GCCs contribute to their parent organisations' success and propel India's economic growth. They account for more than 1 per cent of the country's GDP, and the share is expected to grow further. As more global players eye India to set up their GCC operations, the government has a crucial role in facilitating their entry. Government support for identifying new business models for partnerships, simplifying the entry process, and emphasising trust and data security, among others, will further encourage the location of GCCs in India.

Primary Source: Economic Survey(GOI;2024)

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India's Social Stock Exchange: Bridging Capital Markets with Social Impact

Social Stock Exchange (SSE) is a separate segment of the existing Stock Exchange that can help Social Enterprise(s) raise funds from the public through the stock exchange mechanism. SSE will act as a medium between social enterprises and fund providers, which can help them select entities that create measurable social impact and report such impact. Specific types of Social Enterprises, i.e., Not-for-profit organizations (NPOs) that meet the registration criteria, can register on SSE and undertake to make continuous disclosures on their social impact. Such NPOs may or may not choose to raise funds through SSE; however, they would continue to make disclosures, including on the social impact on stock exchanges.

Indian securities markets, over the years, have been characterized by momentous strides in expanding the retail footprint in finance, innovative fund-raising, and regulatory solid scrutiny of stock exchange

platforms. To leverage this transparency and rigor of equity markets for social good, in the Union Budget of FY20, the Government proposed to initiate steps towards creating an SSE under the regulatory ambit of SEBI for listing social enterprises and voluntary organizations working for the realization of a social welfare objective so that they can raise capital as equity as well as, debt in the country.

The SSE aims to bridge the financing gap by providing alternative fund-raising instruments for achieving socio-development goals. SSE is a separate segment of the existing stock exchange, which can help social enterprises like non-profit organizations (NPOs) and non-government organizations (NGOs) raise funds from the public through the stock exchange mechanism. In this way, SSE is expected to stimulate the ecosystem of outcome-driven philanthropy in India in a transparent and regulated environment. SSE also offers a platform for constructive engagement of NGOs and other enterprises working in the area of social projects related to health, education, livelihood generation, etc., to directly raise funds from the private sector, corporate entities, and individuals (including High Net Worth Individuals (HNIs)) and contribute to development goals. With the increasing global appetite for socially responsible investments, SSE bridges this gap and brings the capital markets closer to the masses for meeting various social welfare objectives.

The contributions towards the social sector projects listed on SSE are made through a unique security, known as Zero Coupon, Zero Principal (ZCZP) instrument as the nature of funding is akin to a donation and, as such, does not promise any payment of coupon or return of the principal amount. To scale up this ecosystem, the Government has recently extended tax exemption under section 80G of the Income Tax Act, 1961, to the contributions made through ZCZPs on SSE. Another noteworthy feature of SSE is that fund-raising on this platform is tied to specific

projects undertaken by eligible NPOs. These NPOs are mandated to declare their year-wise milestones that are targeted to be achieved with funds raised from the public. In this regard, the SEBI (Issue of Capital and Disclosure Requirements (ICDR)) Regulations, 2018 identifies broad activities for which these potential projects can be undertaken, in areas such as eradication of hunger, poverty, malnutrition, and inequality; promotion of healthcare, education, livelihood for rural and urban poor; disaster management; and environmental sustainability, among others.

To be listed on SSE, NGOs/NPOs must disclose their past social audit reports, verifying proven expertise and commitment to executing social sector projects. As eligibility criteria, the regulatory framework requires that the NGOs/NPOs have at least three years of field experience executing social sector projects. Further, to ensure accountability of fund-raisers to fund-providers, entities raising funds on SEE must disclose detailed information about their social and environmental performance in an Annual Impact Report within 90 days from the end of the financial year, duly audited by a social auditor. Thus, through its rigor, transparency, and scrutiny, the SSE platform ensures that donations reach credible entities, inspiring confidence in the ecosystem and paving the way for its scalability as we advance.

After SEBI rolled out the regulatory framework for SSE, the National Stock Exchange (NSE) and Bombay Stock Exchange (BSE) obtained SEBI's in-principle approval to set up a separate segment of SSE. As of

April 2024, 51 NPOs are registered on the BSE, and 50 (11 undergoing renewal) are registered on the NSE. Nine NPOs have raised funds on SSE, amounting to a total of ₹ 12.4 crore. These projects span social projects in education, livelihood generation, skill development, etc.

Primary source (GOI: Economic Survey 2024 & NSE)

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"Be yourself; everyone is already taken"

Anonymous

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Export Benefits for E-Commerce via Courier Mode

In a significant fillip to courier exports and to encourage the e-commerce industry in India, the Central Board of Indirect Taxes and Customs (CBIC) has extended export-related benefits under Duty Drawback, RoDTEP, and RoSCTL schemes for exports made through Courier mode, w.e.f. 12.09.2024.

The RoDTEP scheme provides rebates for central, state, and local duties/taxes/ levies, which are not refunded under any other duty remission schemes. The broad provisions are as follows:

To take advantage of the scheme, the exporter must declare a claim for RoDTEP in the shipping bill.

The rebate of state and central levies and taxes (RoSCTL) scheme rebates all embedded state and central taxes/levies on exports of made-up articles and garments.

The move aims to provide a level playing field and a conducive environment for inclusive and harmonious growth of exports through courier mode. It seeks to enhance the competitiveness of MSME exporters. This initiative will significantly boost courier exports and strengthen India's position in the emerging global e-commerce sector.

To further stimulate e-commerce exports, CBIC has approved amendments to the Courier Imports and Exports (Electronic Declaration and Processing) Regulations, 2010, which will enable exporters to claim Duty Drawback, RoDTEP, and RoSCTL benefits for exports made through courier mode. A Notification No. 60/2024-Customs (NT) amending the Courier regulations and a Circular No. l5/2024-Customs explaining the amendments and informing the stakeholders about the modalities involved in the process were issued on 12.09.2024.

The Courier import and export shipments are handled on the ECCS for clearance at the notified lCTs. ECCS has limitations in processing exporters' Drawbacks, RoDTEP, and RoSCTL claims. Hence, as a significant step towards trade facilitation, it has been decided to use the Indian Customs EDI System (ICES) at the ICTs to process the claims, as mentioned earlier, as ICES has the requisite facilities, such as scroll generation and integration with PFMS. Thus, while the logistics of the Courier terminal will be used for physical handling and examination purposes, the customs clearance will be handled on ICES. Live trials at ICTs will be conducted for a week to identify and resolve issues, if any.

Over the recent years, the Government of India has revolutionized and streamlined India's E-commerce export ecosystem through various policy initiatives, digital reforms, and regulatory measures. A chapter,' Promoting Cross-Border Trade in the Digital Economy,' exclusively dedicated to cross-border E-commerce trade, has been introduced in the Foreign Trade Policy 2023. This policy provides a framework for cross-border trade in goods and services in the digital economy and promotes E-commerce using Courier, Post, E-commerce Export Hubs, Dak Niryat Kendras, etc.

The e-commerce business in India has seen exponential growth over the last decade and is expected to witness a steep increase in revenues in the coming years. As per estimates, India's e-commerce exports will likely rise to $400 billion by 2030. Regarding courier exports, in FY 2022-23, the total value of Courier exports stood at Rs. 7,995 crore, with e-commerce exports accounting for Rs. 3,510 crore. The figures are expected to increase significantly, given the global trends and impetus provided to the E-commerce industry through various Government initiatives.

There are 14 International Courier Terminals (ICTs) notified under Section 7 of the Customs Act of 1962. CBIC has specifically undertaken several measures to promote cross-border E-commerce through courier and postal modes. It issued the Courier Imports and Exports (Electronic Declaration and Processing) Regulations, 2010, thus enabling the electronic processing of import and export declarations for goods transported through courier mode. The Express Cargo Clearance System (ECCS), an electronic system, was launched and is presently operating at nine central ICTs, which simplifies and streamlines the customs clearance process for courier consignments. Auto LEO facility for export through Courier mode and the facility of advance assessment of Courier

Shipping Bills were also introduced on the ECCS last year. The benefit of an IGST refund is already available for Courier exports through ECCS.

In collaboration with the Department of Posts, CBIC launched in December 2022 an innovative 'Hub and Spoke' model to promote E-commerce exports. This model leverages the extensive network of post offices across the country to facilitate seamless export processes. This model, which has already designated 1,015 Dak Niryaat Kendras across the country, is set to revolutionize the export process, benefiting MSMEs and small exporters in remote areas.

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The Evolution of Justice in British India: From East India Company to Legal Reforms

By a Royal Charter granted by the Queen on 31 December 1600 the East India Company was established and both the Indians and Britishers came under the jurisdiction of the Company. The Charter created a monopoly for the Company in the matters of business and the violation of the Charter was punishable with forfeiture of the ships and cargo of the violators. Bombay, Madras and Calcutta were three Presidencies during British India. **The Charter of 1687, issued by the Company itself and not the Crown, established a town corporation at Madras.**

ESTABLISHMENT OF MAYOR'S COURTS

The East India Company expanded greatly in the over 100 years since its creation. It added new establishments to its jurisdiction, which brought new challenges to the Company. Therefore, the Company requested the King to issue a Charter by which special powers could be granted to it.

On such a request, the Company was granted a Charter by King George I in 1726 to establish "Mayor's Courts" in Madras, Bombay, and Calcutta (now Chennai, Mumbai, and Kolkata, respectively). Mayor's Courts were not courts of the Company but of the King of England. Mayor's Courts superseded all existing

courts established in the above places. These courts were given the authority "to try, hear, and determine all civil suits, actions, and pleas" that may arise within the three towns or the factories of the Company.

The composition of the Mayor's Court was such that most members were required to be naturally-born British subjects**. It consisted of a Mayor and nine Aldermen, seven of whom, including the Mayor, were needed to be naturally-born British subjects. Alderman was a member of the municipal legislative body in a town or city in many jurisdictions. Aldermen were elected from among the leading inhabitants of the settlement to hold the position for life. The Mayor was elected from among the Aldermen.**

The Mayor's Courts, with their historical continuity, significantly contributed to the formulation of a uniform pattern of judicial functioning in India. The inhabitants of the settlement were governed by English Law, irrespective of their nationality.

The Charter of 1726, while not specifying the law to be applied by the Mayor's Courts, did mandate the court to "give judgment and sentence according to justice and right". However, based on past practice and the 1661 Charter, the then existing English Law or principles of English Common Law and Equity were applied. This meant that the Mayor's Courts administered English Law, which was assumed to be the settlement's lex loci ("law of the land").

It is generally understood that the **Charter of 1726 indirectly applied the laws of England- both common law and statute law- to the three British Settlements in India.** This is one of the distinctive outcomes of the 1726 Charter. Decisions of the Mayor's Court were appealable. Appeals from the Mayor's Court were made to the Court of the Governor and the Council. The Governor and five members of the Council were appointed Justices of Peace and constituted a criminal court. The Court of Governor and Council were required to meet four times a year for the trial of all offenses except that of high treason. In cases valued at 1000 pagodas or more, a second appeal was available to the King-in-Council in England. The sheriff was the chief executive officer of the country's Crown. A Sheriff with jurisdiction within Presidency Town and for 10 miles around was chosen annually by the Governor and the Council. Mayor Court was a court of record and could punish for its contempt. However, English law did not extend outside the settlements, so the Indians were subject to their own laws.

The Mayor's Courts established under the Charter of 1726 had severe limitations. There was no clarity regarding the applicable law, although the Company made considerable efforts to apply the English Law. The jurisdiction of the Mayor's Court over natives was relatively uncertain. In several instances, the Mayor's Court annoyed the natives by applying the principles of English Law, completely disregarding their personal laws and customs.

In 1746, the French occupied Madras, after which the functioning of the Mayor's Court was suspended in that city. However, the French surrendered Madras to the British in 1749 after the conclusion of the Peace Treaty of Aix-La Chapelle. Using this opportunity, the Company

requested the King to remove some difficulties related to the 1726 Charter.

King George II issued another Charter on 8 January 1753, which by and large left the 1726 Charter intact. **By virtue of the 1753 Charter, the Mayor Courts were re-established in the three settlements with the same jurisdictions and powers as in the Charter of 1726.** To avoid disputes between the Governor and Council, the Charter brought the Mayor's Court under the control of the Governor and the Council. The Mayor, instead of being selected by the Aldermen, was to be selected by the Governor and Council. Furthermore, suits and other actions by natives were expressly excluded from the jurisdiction of the Mayor's Court unless both parties had submitted them to their determination.

The jurisdiction of the Mayor's Court was restricted to suits of the value of over five (5) pagodas. It is notable that courts such as the Mayor's Courts were established for deciding mainly the disputes of the British natives or other foreigners.

Therefore, in all the three settlements, different types of courts existed to decide the cases of the natives. **In Madras, the Choultry courts existed to decide cases up to the value of 20 pagodas.** In other words, Choultry courts heard, by and large, petty cases and continued up to the year 1800. **In Calcutta, the natives were subject to the Zamindars' courts**. The East India Company as the Zamindar, administered these courts. Zamindars' courts decided civil matters, viz. issues involving land, property and personal wrongs. It is also reported that the Zamindars' courts and the Mayor's Court had disputes relating to jurisdiction on certain civil matters.

Justices of Peace were appointed in Calcutta to decide criminal matters. However, in Bombay no separate courts were established to decide disputes among the natives. The reason was that the Company claimed complete sovereignty over the island and did not want to treat the natives differently.

REGULATING ACT OF 1773

By the late 18th century the Company was controlling a large territory and it was not easy to manage the governance of such large territories. The Company was enlarging its role from mere trading body to the administration of the territories. Also, the Company's financial position was getting worse after it suffered defeat at the hands of Haider Ali. However, the retired Company servants amassed a large fortune.

There was a dual system of governance in Bengal and it had suffered famine. In the backdrop of such circumstances the Regulating Act of 1773 was passed. By virtue of the Regulating Act of 1773, the East India Company was kept under control of the King of England. This Act made the Governor of Bengal the Governor General of Bengal and subsumed the Presidencies of Madras and Bombay under Bengal's control. It also established the Council of four (for a period of five years). The Governor General was bound by the majority decision of the Council. The casting vote in case of tie remained with him. The Supreme Court was established at Fort William, Calcutta. The Act empowered the Governor General in the matter of issuing of rules, regulations and ordinances, but they had to be registered in the Supreme Court. The servants of the Company were prohibited from engaging in any private trade or accepting gifts, bribes, etc. from the natives. A Secretary of State for India was appointed and qualification for a vote in court of proprietors was raised from £500 to £1000.

The Regulating Act of 1773 was an important step in the history of India. It was the first step towards governmental control in India. It established Parliamentary control over the Company and curtailed powers of the Company. The Act for the first time recognised the political status of the Company. It unified the Company's territory in India. In many ways it was the beginning of the establishment of the British Empire in India. For the first time an attempt was made by the British Parliament to establish a government in India. It was also the first attempt to apply rules, laws and principles of justice in India and also addressed the issue of corruption as the Company forbade the servants from accepting bribes and gifts.

LAW REFORMS IN BRITISH INDIA

The British administration brought many reforms in the Indian legal system. Policing and administration of justice, which was earlier done by the local rulers, was taken over by the Britishers. Effort was made to clearly identify and consolidate the laws that were existing in the form of customs. In the absence of clear legal rules the courts applied the principles of "justice, equity and good conscience". Also, many progressive legislations were passed.

On 4 December 1829, Lord William Cavendish Bentinck passed the Sati Regulation XVII A.D. 1829, of the Bengal Code. This regulation declared the practice of sati, illegal and punishable by the criminal courts. **The Hindu Widows' Remarriage Act, 1856 was passed**. This Act enabled a Hindu widow to remarry validly. **The Hindu Gains of Learning Act, 1930 was passed allowing all the gains of learning to be kept as exclusive and separate property of the acquirer** even if his learning was, in whole or in part, imparted to him by any member, living or deceased, of his family, or with the aid of the joint funds of his family, or with the aid of the funds any member thereof. **The Hindu Women's Right to Property Act, 1937 was passed.** This legislation, for the first time, created ownership and inheritance rights in favour of women. The Hindu Married Women's Right to Separate Maintenance and Residence Act, 1946 was also passed which provided protection to women from abuse in their matrimonial home.

CHARTER OF 1861

The Indian Councils Act, 1861, an Act of Parliament of the United Kingdom, made notable changes in the composition of the Governor General's Council for executive and legislative purposes.

On the executive side, the Council of the Governor General was expanded and a fifth member of law (Five members: Home, Revenue, Military, Law, Finance, and after 1874, 6th member of Public Work) was added. Also, for the first time the Portfolio system started. This Portfolio system was akin to the present Cabinet system. Each member of the Council of the Governor General was allocated a portfolio of a particular department.

On the legislative side the Governor General's Council was restructured and enlarged. By the Charter not less than 6 and not more than 12 members were now to be nominated by the Governor General and they were to hold the office for two years. Out of these, not less than half were required to be non-official (English or Indian). This was a beginning towards the establishment of a legislative system by adding legislative non-official members to the Council of the Governor General. However, the functions were limited to the legislation and it had not to do any other function except the consideration or enactment of legislative measures. The assent of the Governor General was required for passing of a Bill relating to the public revenue or debt, religion, military, naval or foreign relations. However, any such Act could be dissolved by the Crown acting through the Secretary of State for India. The Viceroy was allowed, under the provisions of the Act, to overrule the Council on affairs if he deemed it necessary. During the tenure of Lord Lytton in 1879 the position was the same.

Earlier the Governments of Madras and Bombay were deprived of their power of legislation by the Charter Act of 1833. The Indian Councils Act, 1861 restored the power of legislation to the Governor-in-Councils of Madras and Bombay in respective matters. The Legislative Council at Calcutta was given extensive authority to pass laws for British India as a whole, while the Legislative Councils at Bombay and Madras were given

the power to make laws for the "Peace and good Government" of their respective Presidencies. The Act also laid down the provision for the formation of Legislative Councils in other Provinces. The Governor General was given the power to create new Provinces for legislative purposes. He was also given the authority to appoint Lieutenant Governors. Though Sir Charles Wood, the Secretary of State for India, believed that the Act was of immense importance, it did little to improve the influence of Indians in the Legislative Council. Notably the Council had only an advisory role.

ESTABLISHMENT OF FEDERAL COURT

In 1937, the Federal Court was established in India. The establishment of the Federal Court changed the structure of the Judiciary in India. Earlier the Judiciary's structure was unitary. After this change it became federal. The court was inaugurated in Delhi. Sir Maurice Gwyer was appointed as the first Chief Justice of the Federal Court.

The primary purpose of the Federal Court was to grant easy access to the litigants as approaching the Privy Council was a huge burden during those days. Federal Court had original, appellate and advisory jurisdictions. However, the court was not supreme as there existed a right to appeal to the Judicial Committee of the Privy Council in London.

The original jurisdiction of the Federal Court was in the disputes between the Central Government and the Provinces.

Appellate jurisdiction was from the decisions of the High Courts of the Provinces involving interpretation of the Government of India Act, 1935. Later, from the year 1937 to 15 August 1947, the appellate jurisdiction was restricted to constitutional cases. After the Independence Act of 1947, the Federal Court was empowered to have the appellate jurisdiction in civil and criminal matters also.

a. Advisory jurisdiction of Federal Court

Under the advisory jurisdiction of the Federal Court the Governor General could approach the court on a question of law which had such a public nature and importance that it was expedient to obtain the opinion of the Federal Court upon it. There was a very transparent system followed in such advisory matters. The court was required to deliver its opinion in open before the public. Such an open court system and public scrutiny for advisory jurisdiction encouraged proper deliberation and care by the court. Private or secret advice could not be given to the Governor General.

ESTABLISHMENT OF OTHER HIGH COURTS AND SUPREME COURT

On 6 August 1861, the Indian High Courts Act was passed by the British Parliament. The main objective of the High Courts Act was to abolish the Supreme Courts and the *Sadar Adalats* in the three Presidencies and to establish the High Courts in their place. At that time the law required that each High Court should consist of one Chief Justice and as many puisne judges not exceeding 15 as Her Majesty might think it fit to appoint. The appointment of the judges of the High Court was during her Majesty's pleasure. For such appointment one was required to be:

1. a barrister/advocate with an experience of five years or more; or

2. a member of the covenanted civil service of not less than 10 years; or
3. a judicial officer not inferior to that of principal *sadar amen* or judge of small cause court for a period of not less than five years; or
4. a pleader of a Sadar Court or High Court for a period of not less than 10 years.

A Supreme Court of Judicature was established at Fort William, Calcutta by an Act of Parliament in the year 1774. This Supreme Court replaced the Mayor's Court and remained the highest court of British Raj in India from 1774 to 1862. The jurisdiction of this court extended to the residents of Bengal, Bihar and Orissa. With the establishment of the High Court of Calcutta this court was abolished.

After independence, **the Supreme Court of India came into existence on 28 January 1950**. Presently it is located on Tilak Marg in New Delhi. Before it moved to its present location, the Supreme Court of India functioned from the Parliament House. At the time of its inception the Supreme Court had one Chief Justice and seven other judges. Parliament had the power to increase the number of judges of the Supreme Court.

As the work of the court increased and the backlog of cases began to cumulate, Parliament increased the number of judges. Presently, the maximum possible strength is 31 (including the Chief Justice of India). In the early years of its functioning, all the judges of the Supreme Court used to sit together to hear the cases presented before them. Now they sit in the groups of two or three; each such group being called a "Bench". Larger "Benches" of five or even more judges are also formed occasionally,

mainly to hear the matter of high importance or to settle the difference of opinion among the smaller Benches.

In order to be appointed as a judge of the Supreme Court, a person must be a citizen of India and must have been, for at least five years, a judge of a High Court or of two or more such courts in succession, or an advocate of a High Court or of two or more such courts in succession for at least 10 years or he must be, in the opinion of the President, a distinguished jurist. A judge of the High Court may also be appointed as an ad-hoc judge of the Supreme Court. Practice and procedure of the Supreme Court is governed by the Supreme Court Rules, 2013 which are framed under Article 145 of the Constitution.

LEGAL PROFESSION IN INDIA

First British courts were established in the year 1672 in Bombay. It was Gerald Aungier, the Governor of Bombay at that time, who established the first courts. There were no legal practitioners prior to the establishment of the Mayor's Courts in 1726 in Madras and Calcutta. It was only by the Regulating Act of 1773 that the Supreme Court could frame the rules of procedure as it thought necessary for the administration of justice and due execution of its powers. The Supreme Court was empowered to approve, admit and enrol advocates and attorneys-at-law. It could enrol such and as many advocates and attorneys as it deemed fit. It also had the power to remove them if a cause existed. At that time only the British attorneys or solicitors were covered under the expression "Attorneys". No other person could appear, plead or act before the court.

The Legal Practitioners Act, 1846 allowed the qualified candidates from any nationality to appear or plead before the court. It allowed the Indian nationals to participate in the legal profession for the first time. Women

were, however, not allowed to participate in the legal profession till 1932. They were allowed by virtue of the Legal Practitioners (Women) Act of 1932. In modern India it is the Advocates Act of 1961 and the Bar Council of India Rules that govern the legal profession. The Advocates Act of 1961 has established the All India Bar Council. The All India Bar Council is the body that enrols law graduates and admits them in the legal profession. It also has the power to deal with the cases of misconduct by the lawyers.

Primary Source (Legal Studies: NCERT)

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"*You can't cross the sea merely by staring at the water*"

Rabindra Nath Tagore

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Rangeen Machhli App: A Complete Guide for Ornamental Fish Lovers in India

The "Rangeen Machhli" app, with its multilingual information on popular ornamental fish species in eight Indian languages, is a comprehensive guide that caters to a wide audience. Whether you're a hobbyist seeking guidance on fish care or a farmer looking to diversify your breeds, the app provides detailed insights on care, breeding, and maintenance practices, ensuring you're well-informed and knowledgeable.

One of the app's standout features is the "**Find Aquarium Shops**" tool, a dynamic directory that enables users to discover nearby aquarium stores. This feature not only promotes local businesses but also provides users with reliable sources for ornamental fish and aquarium-related products, fostering a sense of support and community among users.

Educational Module

The app includes educational modules for newcomers and professionals in the ornamental fish industry. The "**Basics of Aquarium Care**" module covers essential topics such as types of aquariums, fishes, water filtration, lighting, feeding, and day-to-day maintenance, while the "**Ornamental Aquaculture**" module focuses on breeding and rearing different ornamental fish.

Government Initiatives for Promoting Ornamental Fisheries

PMMSY offers support for a range of fishing activities, including developing fishing harbors and landing centers to ensure the safe docking and berthing of fishing boats and vessels along with the efficient handling of post-harvest operations. Additionally, it promotes the

establishment of ornamental fish-rearing units, fish retail markets, and fish kiosks.

Varieties of Ornamental Fishes

India boasts a rich diversity of ornamental fish, with over 195 indigenous varieties reported from the North-East Region and Western Ghats and nearly 400 species from marine ecosystems. Most ornamental fish exported from India are wild varieties, primarily collected from the rivers of the North-East and Southern States, contributing about 85% of the country's total ornamental fish exports. **Among the 195 reported species from the North-East, 155 are of ornamental value.**

The Western Ghats, one of the world's 34 'Biodiversity Hotspot' areas, are home to numerous freshwater fish species. Forty are of ornamental value, and 37 are endemic to the region.

Around 90% of India's ornamental fish trade focuses on freshwater, while the remaining 10% involves marine species. Most ornamental fish breeders in India primarily breed exotic species, with only a few engaged in breeding indigenous, marine, or brackish water fish.

Goldfish is the most popular species among hobbyists, leading its breeding to dominate the Indian ornamental fish sector. Besides common livebearer varieties, breeders focus on specialized species like Oscar, Flower Horn, Tetras, Discus, and Cichlids.

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Dak Ghar Niryat Kendra is Empowering Indian Exporters

The Department of Posts has announced a significant enhancement to its Dak Ghar Niryat Kendra (DNK) initiative, aimed at promoting commercial exports across the country. With over 1,000 Dak Ghar Niryat Kendras established nationwide, these centres offer exporters a range of services, including e-filing of postal bills of export, self-booking, electronic customs clearance, packaging, free pick up, trace and track, volume-based discounts and hand-holding, support and guidance exporters.

In a significant development, the integration between the Dak Ghar Niryat Kendra (DNK) portal has now been successfully established with the Indian Customs Electronic Gateway (ICEGATE), Indian Customs EDI System (ICES), Public Financial Management System (PFMS) and Export Data Processing & Monitoring System (EDPMS) of RBI. This integration will streamline data flow between DNK and systems of Customs and PFMS to automate IGST refund. The flow of data into

EDPMS will facilitate the issuance of electronic Bank Realization Certificates (e-BRC) by authorized dealers (AD Banks). This will provide exporters with improved visibility over their export transactions and payments, empowering them with enhanced decision-making capabilities.

Exporters utilising the DNK Portal must understand the importance of registering their **AD Code** on the ICEGATE Portal and providing accurate bank account details. This is crucial to ensure timely IGST refunds and availing of e-BRC facility of banks. The registration process is vital for verifying bank details and facilitating direct credit of refunds, and should be a top priority for all exporters.

This integration marks a significant milestone in facilitating exports through the postal network, particularly from remote and smaller locations. It contributes to the ease of doing business for Indian exporters and is in direct alignment with the Government of India's schemes of ODOP (One District, One Product), promoting GI-tagged products, Make in India, etc., to boost exports.

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Highlights from the 2nd Global Food Regulator Summit in India

The second Global Food Regulator Summit, a truly global event, is set to take place in India. With the participation of 30 international organizations and over 70 countries, including food safety regulators, Risk Assessment Authorities, Research Institutes, and Universities, this summit is a testament to the global commitment to food safety.

One of the most anticipated highlights of GFRS 2.0 is the launch of several innovative initiatives to transform food safety practices and information sharing. This includes the introduction of a new website dedicated to Food Import Rejection Alerts (FIRA) and the unveiling of Food Import Clearance System 2.0 (FICS 2.0). 'FIRA is an online portal designed to share information about food import rejections at Indian borders. It serves as an online alert notification platform for both the general public and the Food Safety Authority of the relevant country.

FICS 2.0, an advanced version of the Food Import Clearance System for faster processing and transparency, addresses the limitations of the earlier system by offering a complete online solution with new features, automation, and integration with other relevant portals. Additionally, the State Food Safety Index (SFSI) 2024, an annual report evaluating the food safety performance of Indian states and union territories, will be released at the summit.

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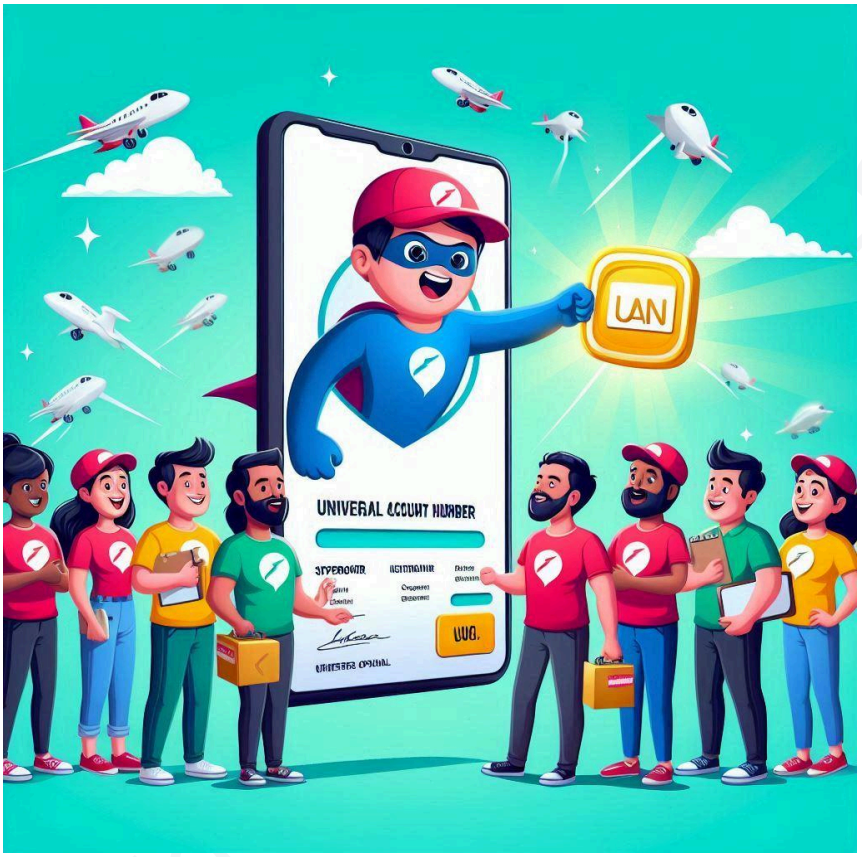
Empowering Gig Workers: Government of India Invites Aggregators to Register on the e-Shram Portal



The Ministry of Labour & Employment has taken another significant step in extending social security benefits to gig and platform workers by inviting platform aggregators to register their workers on the e-Shram portal. This registration is crucial to ensuring workers' access to social welfare schemes, while aggregators will help develop an accurate registry of beneficiaries.

To guide the process, the Ministry has issued an advisory with a Standard Operating Procedure (SOP) outlining aggregator responsibilities, including registering workers and updating their data. Platform workers will receive a Universal Account Number (UAN) upon registration to access critical social security benefits.

Central Government, working with a few aggregators, has completed testing for API integration and is advancing the registration process. This joint effort aims to ensure complete coverage of gig workers, with ongoing collaboration between the Ministry and platform aggregators.

Through the guidelines, the Aggregators have also been requested to regularly update workers' details, including work engagement and payments. Any worker's exit must be reported promptly to maintain accurate records.

To assist with onboarding workers and aggregators, a toll-free helpline (14434) has been set up to provide information, guide registration, and resolve any technical issues encountered during the process.

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"Freedom is not an inheritance; it is a responsibility"

Sardar Vallabh Bhai Patel

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India's Next Leap in Space Exploration: Bharatiya Anthariksh Station and Future Space Missions

Bharatiya Anthariksh Station (BAS): Our own space station for Scientific research is to be established with the launch of its first module in 2028.

The union cabinet has approved the building of the first unit of the Bharatiya Anthariksh Station by extending the scope of the Gaganyaan program. The Gaganyaan Programme has been revised to include the scope of development and precursor missions for BAS, factoring in one additional uncrewed mission and additional hardware requirement for the ongoing Gaganyaan Programme. Now, the human spaceflight technology development and demonstration program has eight missions, which will be completed by December 2028 by launching the first unit of BAS-1.

The Gaganyaan Programme, approved in December 2018, envisages undertaking human spaceflight to Low Earth Orbit (LEO) and laying the

foundation of technologies needed for an Indian human space exploration programme in the long run. The vision for space in the Amrit Kaal envisages, among other things, the creation of an operational Bharatiya Anthariksh Station by 2035 and an Indian Crewed Lunar Mission by 2040.

The Gaganyaan Programme is not just a mission, but a national effort that will be led by ISRO in collaboration with industry, academia, and other national agencies. This collective effort will be instrumental in implementing the programme through the established project management mechanism within ISRO. The goal is to develop and demonstrate critical technologies for long-duration human space missions, with ISRO planning to undertake four missions under the ongoing Gaganyaan programme by 2026.

The establishment of the Bharatiya Anthariksh Station will not only enhance India's technological capabilities for human space missions but also bring significant economic benefits. This national space-based facility will boost microgravity-based scientific research and technology development activities, leading to technological spin-offs and encouraging innovations in critical areas of research and development. The increased industrial participation and economic activity in the human space programme will create more employment opportunities, especially in niche high-technology areas in space and allied sectors.

Further, the development of **a Next Generation Launch Vehicle (NGLV)** has also been approved. It will be a significant step towards the Government's vision of establishing & operating the Bharatiya Anthariksh Station and developing capability for Indian Crewed Landing on the Moon by 2040. NGLV will have three times the present payload capability, at 1.5 times the cost compared to LVM3, and will also

have reusability, resulting in low-cost access to space and modular green propulsion systems.

The goals of the Indian space programme during the Amrit Kaal require a new generation of human-rated launch vehicles with high payload capability and reusability. Hence, the development of the Next Generation Launch Vehicle (NGLV) has been taken up, and it is designed to have a maximum payload capability of 30 tonnes to Low Earth Orbit, which also has a reusable first stage. Currently, India has achieved self-reliance in space transportation systems to launch satellites up to 10 tonnes to Low Earth Orbit (LEO) and four tonnes to Geo-Synchronous Transfer Orbit (GTO) through the currently operational PSLV, GSLV, LVM3 & SSLV launch vehicles.

The NGLV development project will be implemented with maximal participation from the Indian industry, which is also expected to invest in the manufacturing capacity at the outset, thereby allowing a seamless transition to the operational phase after the development. NGLV will be demonstrated with three development flights (D1, D2 & D3) with a target of 96 months (8 years) to complete the development phase. The development of NGLV will enable national & commercial missions, including the launch of human spaceflight missions to Bharatiya Anthariksh Station, Lunar/inter-planetary exploration missions along with communication & earth observation satellite constellations to Low Earth Orbit that will benefit the entire space ecosystem in the country. This project will boost the Indian space ecosystem regarding capability and capacity.

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Understanding the NPS Vatsalya: A New Pension Scheme for Minors in India

Government has recently launched the National Pension System Vatsalya (NPS Vatsalya) scheme, 'a pension scheme for minors'.

Eligibility for NPS Vatsalya is as follows:

1. All minor citizens (age below 18 years).
2. Account can be opened in the name of a minor and operated by a parent or guardian. Minor will be the beneficiary.
3. Scheme can be opened through various 'points of presence' regulated by PFRDA such as major banks, India Post, Pension Funds and Online platform (e-NPS).

4. Subscriber to make a minimum contribution of Rs 1000/- per annum. There is no limit on the maximum contribution.
5. PFRDA will provide multiple investment choices to subscribers. Subscribers can take exposure in government securities, corporate debt, and equity in different proportions based on risk appetite and desired returns.
6. On attaining the age of majority the plan can be converted seamlessly into a normal NPS account.

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"Hope is the thing with feathers that perches in the soul,

And sings the tune without the words, and never stops at all …

Emily Dickinson

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Simultaneous Elections: Cabinet Approves High-Level Committee's Recommendations for Streamlined Polls

The union cabinet has accepted the recommendations of the high-level committee on simultaneous elections under the chairmanship of former president Shri Ram Nath Kovind.

Recommendations of the High-Level Committee

1. Elections were held simultaneously between 1951 and 1967.
2. Law Commission: 170th report (1999): One election to Lok Sabha and all Legislative Assemblies in five years.
3. Parliamentary Committee 79th Report (2015): suggest methods for simultaneous elections in two phases.
4. The high-level committee chaired by Shri Ram Nath Kovind extensively consulted a broad spectrum of stakeholders including political parties and experts.
5. The report is available online at: https://onoe.gov.in
6. Extensive feedback has shown widespread support for simultaneous elections in the country.

Recommendations and the Way Forward

1. Implement in two phases.
2. In the first phase: conduct Lok Sabha and assembly elections simultaneously.
3. In the second phase: Conduct local body elections (panchayat and municipalities) within 100 days of general elections.
4. Common electoral roll for all elections.
5. Will initiate detailed discussions throughout the country.
6. Constitute an implementation group.

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Cabinet Extends PM-AASHA: Ensuring Fair Prices for Farmers and Stable Costs for Consumers

The Union Cabinet has approved the continuation of the Pradhan Mantri Annadata Aay SanraksHan Abhiyan (PM-AASHA) schemes. These schemes, designed to provide remunerative prices to farmers and control the price volatility of essential commodities for consumers, bring significant benefits to both stakeholders.

The government has integrated the Price Support Scheme (PSS) and the Price Stabilization Fund (PSF) schemes into PM AASHA, creating an efficient and effective system. This Integrated scheme of PM-AASHA will not only provide remunerative prices to the farmers for their produce but also control the price volatility of essential commodities, ensuring their availability at affordable prices to consumers.

The procurement of notified pulses, oilseeds & copra at MSP under the Price Support Scheme will be on 25% of the national production of these notified crops from the 2024-25 season onwards, which would enable States to procure more of these crops at MSP from farmers to ensure remunerative prices and preventing distress sale. However, this ceiling will not be applicable in the case of Tur, Urad & Masur for the 2024-25 season as there will be a 100 % procurement of Tur, Urad & Masur during the 2024-25 season as decided earlier.

The government has renewed and enhanced the existing government guarantee to Rs.45,000 crore for procurement of notified pulses, oilseeds & copra at MSP from farmers. This will help in more procurement of pulses, oilseeds & copra by the Department of Agriculture and Farmers Welfare (DA&FW) from farmers at MSP, including Pre-registered farmers on the eSamridhi portal of the National Agricultural Cooperative Marketing Federation of India (NAFED) and the eSamyukti

portal of National Cooperative Consumers' Federation of India (NCCF) whenever prices fall below MSP in the market. This would also motivate the farmers to cultivate more of these crops in the country and contribute to achieving self-sufficiency in these crops, reducing dependence on imports to meet domestic requirements.

The extension of the Price Stabilization Fund (PSF) scheme will help protect consumers from extreme volatility in prices of agri-horticultural commodities by maintaining a strategic buffer stock of pulses and onion for calibrated release to discourage hoarding, unscrupulous speculation and supplies to consumers at affordable prices. Procurement of pulses at market price will be done by the Department of Consumer Affairs (DoCA), including Pre-registered farmers on the eSamridhi portal of NAFED and the eSamyukti portal of NCCF whenever prices rule above MSP in the market. Apart from buffer maintenance, the interventions under the PSF scheme have been undertaken in other crops, such as Tomato, and in the subsidized retail sales of Bharat DaIs, Bharat Atta, and Bharat Rice.

To encourage the states to come forward for implementation of the Price Deficit Payment Scheme (PDPS) as an option for Notified oilseeds, the coverage has been enhanced from the existing 25% of state production of oilseeds to 40% and also enhanced the implementation period from 3 months to 4 months for the benefits of farmers. The compensation for the difference between MSP and sale/marginal price to be borne by the central government is limited to 15% of MSP.

The extension of implementation of the Market Intervention Scheme (MIS) with changes will provide remunerative prices to farmers growing perishable horticulture crops. The government has increased the production coverage from 20% to 25%. It has added a new option of making differential payments directly into the farmers' account instead of physical procurement under MIS. Further, in the case of TOP

(Tomato, Onion & Potato) crops, to bridge the price gap in TOP crops between producing states and consuming states during peak harvesting time, the government has decided to bear the transportation and storage expenses for the operations undertaken by Central Nodal Agencies like NAFED & NCCF which will not only ensure remunerative prices to farmers but also soften the prices of TOP crops for consumers in the market.

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The Bio-RIDE Scheme and Its Impact on Biotechnology in India

The union cabinet has approved continuation of the two umbrella schemes of Department of Biotechnology (DBT), merged as one scheme –'Biotechnology Research Innovation and Entrepreneurship Development (Bio- RIDE)' with a new component namely Biomanufacturing and Biofoundry.

The scheme has three broad components:

a) Biotechnology Research and Development (R&D)

b) Industrial & Entrepreneurship Development (I&ED)

c) Biomanufacturing and Biofoundry

The **Bio-RIDE scheme** is designed to foster innovation, promote bio-entrepreneurship, and strengthen India's position as a global leader in biomanufacturing and biotechnology. It aims to accelerate research, enhance product development, and bridge the gap between academic research and industrial applications. The scheme is part of the Government of India's mission to harness the potential of bio-innovation to tackle national and global challenges such as healthcare, agriculture, environmental sustainability, and clean energy.

Implementation of Bio-RIDE Scheme will -

· **Promote Bio-Entrepreneurship**: Bio-RIDE will nurture a thriving ecosystem for startups by providing seed funding, incubation support, and mentorship to bio-entrepreneurs.

· **Advance Innovation**: The scheme will offer grants and incentives for cutting-edge research and development in areas like synthetic biology, biopharmaceuticals, bioenergy, and bioplastics.

· **Facilitate Industry-Academia Collaboration**: Bio-RIDE will create synergies between academic institutions, research organizations, and industry to accelerate the commercialization of bio-based products and technologies.

· **Encourage Sustainable Biomanufacturing**: A significant focus will be placed on promoting environmentally sustainable practices in biomanufacturing, aligned with India's green goals.

· **Support Researchers Through Extramural Funding**: Bio-RIDE will play a critical role in advancing scientific research, innovation, and technological development across diverse fields of biotechnology by supporting extramural funding to research institutions, universities, and individual researchers in areas such as agriculture, healthcare, bioenergy, and environmental sustainability.

· **Nurturing Human Resource in Biotechnology Sector**: Bio-RIDE will provide holistic development and support to students, young researchers and scientists working in the multidisciplinary areas of Biotechnology. The integrated programme of human resource development will contribute towards the capacity building and skilling of the manpower and make them competent to leverage the newer horizon of technological advancements.

Further, to enable circular-bioeconomy in the country a component on biomanufacturing and biofoundry is being initiated in alignment with

the recently launched 'Lifestyle for the Environment (LiFE)' to propel mitigation of global climate change by incorporating green and friendly environmental solutions in every aspect of life. This new component of Bio-RIDE aspires to nurture the immense potential of 'biomanufacturing' to facilitate development of indigenous innovative solutions to improve healthcare outcomes, enhance agriculture productivity, foster growth of the bioeconomy, scale-up and commercialization of bio-based products, expanding India's cohort of highly skilled workforce, and intensifying entrepreneurial momentum.

The DBT's ongoing efforts align with its vision of harnessing the potential of biotechnology as a precision tool for national development and well-being of society to fulfill its mission to make India globally competitive in biotechnology research, innovation, translation, entrepreneurship, and industrial growth and be a US$300 billion bioeconomy by 2030. The Bio-RIDE scheme will contribute significantly towards realizing the vision of 'Viksit Bharat 2047'.

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Big Boost to Anime and Manga Culture in India: WAVES Anime & Manga Contest (WAM!)

In a landmark initiative to promote anime and manga culture in India, the **Ministry of Information & Broadcasting** in collaboration with the **Media & Entertainment Association of India (MEAI)**, has officially launched the **WAVES Anime & Manga Contest (WAM!)**. This innovative contest is part of the "**Create in India Challenge**", aiming to nurture local talent and tap into the growing interest in Japanese manga and anime among Indian audiences.

GOI unveiled the **Create in India Challenge—Season One** in New Delhi on 22nd August 2024. This challenge serves as a precursor to the upcoming WAVES summit, aligning with Prime Minister Narendra

Modi's vision of "***Design in India, Design for the World,***" articulated during the 78th Independence Day address.

About WAM!

WAM! offers a unique opportunity for Indian creators to produce localized versions of popular Japanese art styles, catering to both domestic and international audiences. By providing substantial marketing support and opportunities for global recognition, the contest aims to establish a strong platform for creative expression in manga and anime.

WAM! features **three categories**, each offering a unique platform for creative expression:

1. **Participation Verticals**
    1. **Manga** (Japanese style comics)- Individual Participation for Student and Professional Category
    2. **Webtoon** (Vertical comics for digital mediums) - Individual Participation for Student and Professional Category
    3. **Anime** (Japanese style animation) - Team (of up to 4 people) Participation for Student and ProfessionalCategory
2. **Format & Delivery** - script provided on the spot. Participants to generate:
    1. **Manga** (Student, Individual) - 2 pages manga with at least 4 panels each, ink and color (physical / digital)
    2. **Manga** (Professional, Individual) - 2 pages manga with at least 4 panels each,ink and color (physical / digital)
    3. **Webtoon** (Student, Individual): 7 panels with ink and color

4. **Webtoon** (Professional, Individual): 10 panels with ink and color.
5. **Anime** (Student, Teams) - 10 seconds of anime as per the provided script
6. **Anime** (Professional, Teams) - 15 seconds of anime as per the provided script

Competition Structure and Schedule

Participants can compete individually or in teams (of up to 4 people), with separate categories for students and professionals. The event is structured in two levels: **state-level** competitions across eleven cities and a **national-level** finale.

Each state-level event begins with registration at 9:00 a.m., followed by a welcome and briefing session at 9:30 a.m. The competition runs from 10:00 a.m. to 6:00 p.m., featuring a bustling expo and job fair that connects participants with industry opportunities. The day concludes with a wrap-up and celebration from 6:00 p.m. to 8:00 p.m., with activities such as cosplay competitions, musical performances, voice acting sessions and exciting giveaways.

Key Dates and Locations for WAM!

- **WAM! Bangalore:** October 27, 2024
- **WAM! Chennai:** November 10, 2024
- **WAM! Kohima:** November 22, 2024
- **WAM! Kolkata:** November 24, 2024
- **WAM! Bhubaneswar:** November 26, 2024
- **WAM! Varanasi:** November 28, 2024

- **WAM! Delhi:** November 30, 2024
- **WAM! Mumbai:** December 15, 2024
- **WAM! Ahmedabad:** December 17, 2024
- **WAM! Nagpur:** December 19, 2024
- **WAM! Hyderabad:** December 21, 2024

Registration is open on WAM! website www.meai.in/wam and participation is free of charge for all categories.

The "WAM! Finale" will take place as part of the WAVES summit from February 5 to 9, 2025, at the Bharat Mandapam in Delhi. Winners will receive an all-expenses-paid trip to Anime Japan and similar international events, supported by the Ministry of Information and Broadcasting.

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GOI Initiates Framework for Repairability Index in Mobile and Electronics

The Department of Consumer Affairs (DoCA), Government of India, has entrusted a committee of experts with the crucial task of recommending a robust framework for the Repairability Index. This initiative, aimed at empowering consumers and promoting sustainable practices within the tech industry, underscores the significant role of the committee in shaping the future of consumer rights and sustainability.

In a significant step towards promoting consumer rights and sustainability, the National Workshop on the Right to Repair in the Mobile and Electronics Sector, held on August 29, 2024, was a testament to the collective efforts of industry stakeholders. It brought together diverse voices to establish a consensus on the framework for the Repairability Index, fostering longevity in product design, and democratizing access to repair information and spare parts.

Given the rapid growth and short lifespan of mobile and electronics, the need for the Repairability Index was widely acknowledged during the workshop. This index, by providing consumers with essential information about product repairability and seamless access to spare parts, will empower them to make informed purchasing decisions, thereby enhancing their consumer experience.

The Repairability Index will be a consumer-focused indexing that enables consumers to make a product-related decision based on its repairability. Further, it can standardize how repairability is assessed, making it easier for consumers to compare products based on repairability indexing. Thus, it will create an informed choice ecosystem across mobile and electronic products.

By standardizing the assessment of repairability, the index will create an ecosystem where consumers can easily compare products and choose options that align with the ethos of mindful product consumption and sustainability. Thus, enabling repair would not only ensure the

availability of affordable repair options but will also improve consumer satisfaction by bridging the information gaps for repairing products.

The key components of the repair ecosystem include:

1. Comprehensive Repair Information: Access to repair manuals/DIYs, diagnostics, and necessary tools and parts.
2. Accessible Spare Parts: Easily identifiable and timely delivery of spare parts.
3. Affordable Tools: Inexpensive, widely available, and safe tools for consumers.
4. Modular Design: Key components designed for independent access and modularity.
5. Economic Feasibility: Ensuring that the cost of repair parts and labor is affordable for consumers.

Taking into account the above necessities, the committee is expected to recommend an enabling framework for policies/rules/guidelines that support repairability and integrate the repairability index with the extant regulatory provisions in the mobile and electronics sector to enhance consumer experiences in reusing the mobile and electronics products they own.

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India AI Fellowships: Empowering B.Tech, M.Tech, and PhD Scholars in Artificial Intelligence

IndiaAI—Independent Business Division (IBD) is inviting nominations from **B.Tech and M.Tech** students for **the IndiaAI fellowship**. Subsequently, IndiaAI is also inviting **the Top 50 National Institutional Ranking Framework** (NIRF) ranked research institutes to share their approval to participate in the IndiaAI Fellowship for new **PhD** intakes researching Artificial Intelligence.

Nominations for B.Tech & M.Tech Students

IndiaAI is inviting nominations for the IndiaAI Fellowship from all **B.Tech and M.Tech students** undertaking projects in AI. This fellowship support will supplement any existing fellowships and will cover the duration of the project: one year for B.Tech. students and two years for M.Tech. Students.

Students had to submit their nominations on -**https://indiaai.gov.in/article/proforma-for-submission-of-nominations-for-indiaai-fellowship-under-the-indiaai-mission** as per the prescribed guidelines by **30th September 2024.**

Fellowship Opportunities for AI researchers in Top Institutes

IndiaAI is offering fellowships to **full time PhD scholars** researching in the areas of Artificial Intelligence in the top 50 NIRF ranked Research Institutes. IndiaAI - IBD is inviting top 50 ranked research institutes to share their approval to participate in IndiaAI Fellowship and intake new PhD scholars in Artificial Intelligence. These scholars should not receive any scholarship / salary from any other organization at the time of enrolment into IndiaAI PhD Fellowship.

Top 50 NIRF ranked Research Institutes are requested to submit their approval on the official letterhead signed and stamped by institute's head agreeing to intake new PhD scholars as per the IndiaAI PhD fellowship guidelines to **Smt. Kavita Bhatia, Sci 'G' & GC (AI & ET)** on **kbhatia@meity.gov.**in by **30th September, 2024**.

Selection Criteria for IndiaAI Fellowship

The actual selection of suitable candidates for the award of the IndiaAI Fellowship will be done by IndiaAI based on eligibility, relevance of the research proposal, profile of the student and availability of fellowships at the national level.

About IndiaAI

IndiaAI, an IBD under the Digital India Corporation (DIC) of the Ministry of Electronics and IT (MeitY), is the implementation agency of the IndiaAI Mission, which aims to **democratize AI's benefits** across all strata of society, bolster **India's global leadership** in AI, foster **technological self-reliance**, and ensure **ethical** and **responsible** use of AI.

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10 Years of Make in India

Transforming India into a Global Manufacturing Powerhouse

Introduction

Launched on September 25, 2014, the "Make in India" initiative is completing 10 years as a pivotal step in India's nation-building efforts. The initiative was conceived during a period when India's economic growth had sharply declined, and the country faced critical challenges in sustaining its development trajectory. Against this backdrop, "Make in India" was designed to transform India into a global hub for design and manufacturing. Its core objectives were to facilitate investment, encourage innovation, and develop world-class infrastructure. As one of the pioneering 'Vocal for Local' initiatives, it sought not only to boost India's manufacturing capabilities but also to showcase its industrial potential on a global stage.

The initiative's focus on developing a robust manufacturing sector promises to elevate India's economic trajectory and generate employment opportunities for its vast young workforce. Now, with the "Make in India 2.0" phase encompassing 27 sectors, the program continues to drive forward with significant achievements and renewed vigour, reinforcing India's position as a major player in the global manufacturing landscape.

Sectors Under 'Make in India' Initiative

Manufacturing Sectors	Service Sectors
Aerospace and Defence	Information Technology & Information Technology enabled Services (IT &ITeS)
Automotive and Auto Components	Tourism and Hospitality Services
Pharmaceuticals and Medical Devices	Medical Value Travel
Bio-Technology	Transport and Logistics Services
Capital Goods	Accounting and Finance Services
Textile and Apparels	Audio Visual Services
Chemicals and Petrochemicals	Legal Services
Electronics System Design and Manufacturing (ESDM)	Communication Services
Leather & Footwear	Construction and Related Engineering Services
Food Processing	Environmental Services

Gems and Jewellery	Financial Services
Shipping	Education Services
Railways	
Construction	
New and Renewable Energy	

Pillars of 'Make in India'

- **New Processes**: The "Make in India" initiative identified 'ease of doing business' as a crucial factor for promoting entrepreneurship. Several measures were implemented to enhance the business environment, making it more conducive for startups and established enterprises alike.
- **New Infrastructure**: The government focused on developing industrial corridors and smart cities, integrating state-of-the-art technology and high-speed communication to create world-class infrastructure. Innovation and research were supported through streamlined registration systems and improved intellectual property rights (IPR) infrastructure. Efforts were made to identify industry skill requirements and develop the workforce accordingly.
- **New Sectors**: Foreign Direct Investment (FDI) was significantly opened up in various sectors including Defence Production, Insurance, Medical Devices, Construction, and Railway infrastructure. This expansion also included easing FDI regulations in Insurance and Medical Devices, encouraging international investment and growth.

- **New Mindset**: The government embraced a role as a facilitator rather than a regulator, partnering with industry to drive the country's economic development. This shift aimed to foster a collaborative environment that supported industrial growth and innovation.

Major Initiatives Taken to Enable Make in India

"Make in India" initiative has been a cornerstone in transforming India into a global manufacturing hub. With a strong focus on enhancing industrial capabilities, fostering innovation, and creating world-class infrastructure, the initiative aims to position India as a key player in the global economy. Supported by major programs like Production Linked Incentive (PLI) Schemes, PM GatiShakti, the National Logistics Policy, and comprehensive tax reforms like the Goods and Services Tax (GST), "Make in India" continues to drive economic growth, job creation, and global competitiveness.

Production linked Incentive (PLI) Schemes

Aligned with India's vision of becoming 'Atmanirbhar' (self-reliant), the Production Linked Incentive (PLI) Schemes were introduced to enhance the country's manufacturing capabilities and boost exports. With an impressive outlay of ₹1.97 lakh crore (over US$26 billion), these schemes cover 14 key sectors aimed at fostering investment in cutting-edge technology and promoting global competitiveness.

The 14 sectors covered under the PLI Scheme include:

1. Mobile Manufacturing and Specified Electronic Components
2. Critical Key Starting Materials/Drug Intermediaries & Active Pharmaceutical Ingredients
3. Manufacturing of Medical Devices
4. Automobiles and Auto Components
5. Pharmaceuticals Drugs

6. Specialty Steel
7. Telecom & Networking Products
8. Electronic/Technology Products
9. White Goods (Air Conditioners and LEDs)
10. Food Products
11. Textile Products: MMF segment and technical textiles
12. High Efficiency Solar PV Modules
13. Advanced Chemistry Cell (ACC) Battery
14. Drones and Drone Components

The primary goals of the PLI Schemes are to attract substantial investments, incorporate advanced technology, and ensure operational efficiency. By fostering economies of scale and enhancing global competitiveness, these schemes are expected to significantly boost production, stimulate manufacturing activities, and contribute to economic growth over the coming years.

As of July 30, 2024, 755 applications have been approved across these sectors, leading to an investment realization of ₹1.23 lakh crore by March 2024. This investment has generated employment for approximately 8 lakh individuals, marking a significant stride towards achieving the objectives of the PLI Scheme.

PM GatiShakti

Launched on October 13, 2021, PM GatiShakti is a strategic initiative aimed at achieving Aatmanirbhar Bharat and a US $5 trillion economy by 2025 through the creation of multimodal and last-mile connectivity infrastructure. The program addresses the need for efficient transportation by promoting holistic planning and coordination among 36 Ministries/Departments, integrating progress, and synchronizing project implementation. By enhancing logistics efficiency and bridging

critical infrastructure gaps, PM GatiShakti fosters a 'whole of the government' approach to transform India's infrastructure landscape.

PM GatiShakti is a transformative approach for economic growth and sustainable development. The approach is driven by 7 engines, namely:

1. Railways
2. Roads
3. Ports
4. Waterways
5. Airports
6. Mass Transport
7. Logistics Infrastructure

All 7 engines will pull forward the economy in unison. These engines are supported by the complementary roles of Energy Transmission, IT Communication, Bulk Water & Sewerage, and Social Infrastructure. The approach is powered by Clean Energy and Sabka Prayas – the efforts of the Central Government, the state governments, and the private sector together – leading to huge job and entrepreneurial opportunities for all, especially the youth.

Semiconductor Ecosystem Development

Recognizing the urgent need for a robust and comprehensive policy framework, the Union Cabinet approved the Semicon India programme in 2021, with a substantial financial outlay of INR 76,000 crore. This initiative is designed to foster the development of a sustainable semiconductor and display ecosystem in the country. The Semicon India Programme aims to provide a significant impetus to semiconductor and display manufacturing by facilitating capital support and promoting technological collaborations. Notably, India has crafted policies that support every segment of the semiconductor ecosystem, extending beyond just fabrication plants (fabs) to include packaging, display

technologies, outsourced semiconductor assembly and testing (OSAT), sensors, and more.

The Semicon India Programme Encompasses Four Key Schemes:

1. Modified Scheme for Setting Up Semiconductor Fabs in India
2. Modified Scheme for Setting Up Display Fabs in India
3. Modified Scheme for Setting Up Compound Semiconductors, Silicon Photonics, Sensors Fabs, and Discrete Semiconductors, along with Semiconductor Assembly, Testing, Marking, and Packaging (ATMP) / OSAT Facilities in India
4. Design Linked Incentive (DLI) Scheme

India's semiconductor ecosystem has gained significant momentum, with several landmark projects receiving approval. Notably, the first major project with Micron was sanctioned for nearly Rs 22,000 crores. Additionally, Tata's joint venture with Taiwan's Powerchip in Dholera stands out as a promising development. Currently, there are five such proposals, with a total combined investment nearing Rs 1.52 lakh crores, signalling a strong commitment to advancing India's position in the global semiconductor landscape.

National Logistics Policy

Launched on September 17, 2022, the National Logistics Policy (NLP) was introduced to complement the PM GatiShakti National Master Plan by focusing on enhancing the soft infrastructure of India's logistics sector. The NLP aims to drive economic growth and competitiveness through an integrated, efficient, and sustainable logistics network by leveraging advanced technology, improved processes, and skilled manpower. Its targets include reducing logistics costs, improving India's Logistics Performance Index ranking to among the top 25 countries by 2030, and developing a data-driven decision support system. To meet these objectives, the Comprehensive Logistics Action Plan (CLAP) was

rolled out, addressing key areas such as digital logistics systems, standardization, human resource development, state engagement, and logistics parks.

Industrialization and Urbanization

The National Industrial Corridor Development Programme is India's most ambitious infrastructure initiative, aiming to create "Smart Cities" and advanced industrial hubs. This program focuses on developing integrated industrial corridors with robust multi-modal connectivity, promoting growth in manufacturing and systematic urbanization. Recent cabinet approval of 12 new project proposals, involving an estimated ₹28,602 crore investment, marks a significant step in this transformative effort, positioning India as a leading global destination for manufacturing and investment.

Startup India

Launched on January 16, 2016, the Startup India Initiative has rolled out several programs aimed at supporting entrepreneurs, building a robust startup ecosystem, and transforming India into a country of job creators instead of job seekers. As of September 25, 2024, India boasts the third-largest startup ecosystem in the world, with 148,931 DPIIT Recognized Startups, which have created over 15.5 lakh direct jobs. This remarkable growth underscores the initiative's success in fostering innovation, enhancing employment opportunities, and driving economic development across the nation.

Tax Reforms

The implementation of the Goods and Services Tax (GST) on July 1, 2017, marked a significant step in India's tax reforms, especially in the context of the Make in India initiative. GST unified the country’s 36 states and union territories into a single common market, simplifying the tax structure and reducing the cascading effect of multiple taxes. This has

lowered production costs, making local manufacturing more competitive. The GST rate on over 200 products was reduced from 28% to 18%, enhancing overall efficiency and productivity. The formation of the Goods & Services Tax Council has further ensured the smooth implementation of GST, boosting foreign direct investment by fostering a stable and business-friendly tax environment.

Unified Payments Interface

India's Unified Payments Interface (UPI) has emerged as a frontrunner in the global digital payments landscape, showcasing its remarkable capability to surpass the world's leading digital payments platforms. With an impressive 46% of the global real-time payment transactions occurring in India, UPI has firmly established itself as a significant player in this sector.

In a striking demonstration of its growth, UPI processed nearly ₹81 lakh crore in transactions between April and July 2024 alone. This achievement not only highlights the robustness of UPI but also reflects the increasing trust and reliance on digital payment solutions among Indian consumers. The platform's user-friendly interface, combined with widespread acceptance across various sectors, has made it a cornerstone of India's digital economy, setting a benchmark for other countries to follow.

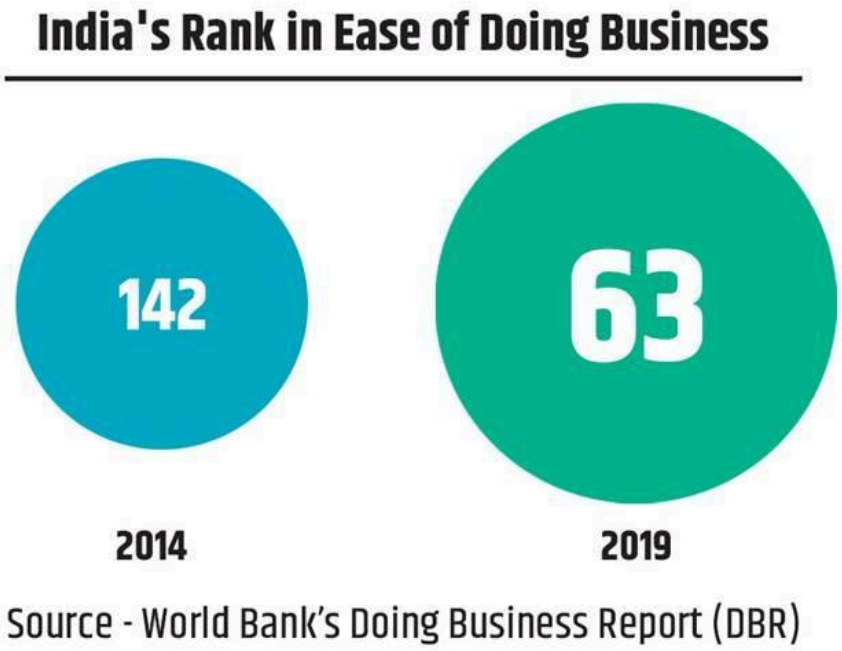
Record FDI to Boost 'Make in India'

The success of the Make in India initiative has been significantly bolstered by record-breaking Foreign Direct Investment (FDI) inflows, driven by the simplification of FDI rules and improvements in ease of doing business. India now ranks among the top 100 nations in the Ease of Doing Business (EoDB) index. FDI inflows have steadily risen, starting from $45.14 billion in 2014-15 to a record $84.83 billion in 2021-22. Between April 2014 and March 2024, India attracted $667.41 billion in FDI, representing nearly 67% of the total FDI received over the

last 24 years. In FY 2023-24, total FDI inflows amounted to $70.95 billion, with equity inflows reaching $44.42 billion, underscoring India's growing appeal as a global investment destination.

Ease of Doing Business

India made remarkable progress in improving its business environment, climbing from 142nd in 2014 to 63rd in the World Bank's Doing Business Report (DBR) 2020, published in October 2019 before its discontinuation. This 79-rank jump over five years reflects the government's sustained efforts to simplify regulations, reduce bureaucratic hurdles, and create a more business-friendly environment, significantly boosting investor confidence and supporting the objectives of the Make in India initiative.



Major Achievements under Make in India

- Powered by indigenously produced vaccines, India not only achieved COVID-19 vaccination coverage in record time but also became a major exporter of much-needed life-saving vaccines to many developing and underdeveloped countries across the world.

India supplies nearly 60% of the world's vaccines, meaning every second vaccine globally is proudly made in India.

- Vande Bharat Trains, India's first indigenous semi-high-speed trains, are a shining example of the success of the 'Make in India' initiative. Featuring state-of-the-art coaches, these trains offer passengers a modern and enhanced travel experience. As of now, 102 Vande Bharat train services (51 trains) are operational across Indian Railways, connecting states with a Broad-Gauge electrified network and showcasing India's growing capability in advanced rail technology.
- India is achieving remarkable milestones in defence production, exemplified by the launch of INS Vikrant, the country's first domestically made aircraft carrier. This initiative is part of India's broader goal to reduce imports and become self-reliant (Atmanirbhar) in the defence sector. In 2023-24, defence production soared to ₹1.27 lakh crore, with exports reaching over 90 countries, showcasing India's growing strength and capability in this critical area.
- India's electronics sector has experienced rapid growth, reaching USD 155 billion in FY23. Production nearly doubled from USD 48 billion in FY17 to USD 101 billion in FY23, driven primarily by mobile phones, which now constitute 43% of total electronics production. India is the second-largest mobile manufacturer in the world and has significantly reduced its reliance on smartphone imports, now manufacturing 99% domestically.
- India recorded merchandise exports worth $437.06 billion in FY 2023-24, reflecting the country's growing role in global trade.
- Indian bicycles have gained international acclaim, with exports to the UK, Germany, and the Netherlands soaring. This surge highlights the global recognition of Indian engineering and design.

- 'Made in Bihar' boots are now part of the Russian Army's equipment, marking a significant milestone for Indian products in the global defence market and showcasing the country's high manufacturing standards.
- Kashmir willow bats have become a global favourite. Their popularity underscores India's exceptional craftsmanship and influence in international cricket.
- Amul has expanded its presence by launching its dairy products in the US. This international venture reflects the global appeal of Indian Flavours and Amul's role in promoting Indian dairy on the world stage.
- The textile industry has created a staggering 14.5 crore jobs across the country, significantly contributing to India's employment landscape.
- India produces an impressive 400 million toys annually, with 10 new toys being created every second.

Conclusion

In conclusion, as the "Make in India" initiative celebrates its 10th anniversary, it stands as a testament to India's determination to reshape its manufacturing landscape and enhance its global standing. With strategic reforms, investment-friendly policies, and a strong focus on infrastructure development, the initiative has significantly enhanced India's industrial capabilities. The success of indigenous projects like the Vande Bharat trains and INS Vikrant, alongside record-breaking FDI inflows, reflects India's growing self-reliance and global competitiveness.

The launch of the Semiconductor Ecosystem Development program and the remarkable growth of the Unified Payments Interface (UPI) further underscore India's commitment to innovation and technological advancement. As India moves forward with initiatives like the

Production Linked Incentive (PLI) Scheme and PM GatiShakti, it is well on its way to achieving sustained economic growth, creating employment opportunities, and strengthening its position on the global stage. The future of India's manufacturing and industrial sectors looks promising, driven by innovation, infrastructure, and a renewed commitment to economic excellence.

Reference: PIB releases

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"The only limits are those we place on ourselves"

Anonymous

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Six Years of Ayushman Bharat: The World's Largest Health Assurance Scheme in India

Enhancing Healthcare Access for 12 Crore Families with ₹5 Lakh Coverage

Introduction

Launched on September 23, 2018, the Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB PM-JAY) has been a cornerstone of India's commitment to achieving Universal Health Coverage (UHC). As a key component of the Ayushman Bharat initiative, which emerged from the National Health Policy 2017, PM-JAY has transformed the healthcare landscape by providing health coverage to the country's most vulnerable. With an ambitious goal of covering over 12 crore families, or nearly 55 crore individuals, PM-JAY has become the largest health assurance scheme in the world, offering comprehensive secondary and tertiary care hospitalisation benefits of up to ₹5 lakh per family annually.

Over the past six years, PM-JAY has sought to address the deep-rooted health inequities in India, prioritising the poorest 40% of the population based on the Socio-Economic Caste Census 2011. This initiative marked a paradigm shift from segmented healthcare services to an integrated, need-based approach, aligning with the nation's commitment to the Sustainable Development Goals (SDGs) and ensuring that "no one is left behind."

Key Features of PM-JAY

- **World's Largest Health Assurance Scheme**: PM-JAY stands as the largest health insurance/assurance initiative globally, fully

financed by the Government of India, offering broad healthcare access to the vulnerable

- **Health Coverage of ₹5 Lakh**: Each entitled family receives an annual health cover of ₹5 lakhs for secondary and tertiary care hospitalisation across public and private empanelled hospitals in India.
- **Coverage for Over 12 Crore Families**: Around 55 crore beneficiaries from 12 crore poor and vulnerable families are eligible for the scheme's benefits, ensuring protection for the most underserved.
- **Cashless Access to Healthcare**: Beneficiaries enjoy cashless healthcare services at the point of care, eliminating the need for out-of-pocket payments during treatment.
- **Mitigating Catastrophic Health Expenditure**: By covering significant medical costs, PM-JAY helps prevent over six crore Indians from falling into poverty yearly due to healthcare expenses.
- **Pre- and Post-Hospitalization Coverage**: The scheme covers up to 3 days of pre-hospitalization and 15 days of post-hospitalization expenses, including diagnostics and medications.
- **No Family Size or Age Restrictions**: PM-JAY imposes no restrictions on family size, age, or gender, ensuring inclusivity for all.
- **Coverage from Day One**: All pre-existing medical conditions are covered from the very first day of enrolment, ensuring timely treatment.
- **Nationwide Portability**: Beneficiaries can access cashless treatment at any empanelled public or private hospital across India, ensuring flexibility and ease of care.
- **Comprehensive Service Package**: AB PM-JAY offers comprehensive coverage across 1,949 medical procedures

spanning 27 medical specialties, including General Medicine, Surgery, Oncology, and Cardiology. Beneficiaries receive hospital services such as free drugs (including 15 days of post-discharge medication), diagnostics (up to 3 days before admission), food, and lodging at no cost.

- **Equal Reimbursement for Public and Private Hospitals**: Public hospitals receive reimbursements for healthcare services at par with private hospitals, ensuring equitable care delivery across all sectors.

Free Health Coverage for All Seniors Over 70 Years

In a landmark decision, the Union Cabinet approved an expansion of the Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB PM-JAY) on September 11, 2024, offering comprehensive health insurance to senior citizens aged 70 and above. This move will provide free health coverage of up to ₹5 lakh per family, regardless of income, benefiting around 6 crore senior citizens across 4.5 crore families.

Under this expansion, all senior citizens in this age group will receive a new distinct card under AB PM-JAY to access the scheme's benefits. For senior citizens aged 70 and above who already belong to families covered by AB PM-JAY, an additional top-up cover of ₹5 lakh per year will be provided exclusively for their use, separate from the rest of the family. Those who are not part of the existing scheme will receive ₹5 lakh of annual coverage on a family basis.

Moreover, senior citizens already covered under public health insurance schemes like the Central Government Health Scheme (CGHS), Ex-Servicemen Contributory Health Scheme (ECHS), or Ayushman CAPF will have the option to either continue with their existing scheme or opt for AB PM-JAY. Additionally, those under private health insurance policies or the Employees' State Insurance scheme will also be eligible to avail of the benefits of AB PM-JAY.

Families Saving More, Stressing Less on Healthcare

The Ayushman Bharat program has led to a remarkable 21% reduction in out-of-pocket healthcare expenditures and an 8% decrease in the incidence of emergency loans taken for health-related expenses. This relief allows families to focus on their well-being without the burden of financial stress.

Affordable Life-Saving Treatments

Under PM-JAY, access to high-frequency, low-cost, life-saving procedures, such as dialysis, which typically costs ₹10,000-15,000 per session, has become significantly more affordable for low-income families. This initiative has alleviated financial burdens, ensuring that essential treatments are within reach.

District Hospitals Get Serious Cash Flow

District hospitals have experienced substantial financial gains, with an annual net benefit of $26.1 million. Projections suggest potential growth could increase this figure to $41.8 million, resulting in average net annual earnings of $169,607 per hospital. This financial boost enhances the capacity of hospitals to serve their communities effectively.

Impact of Ayushman Bharat on Finances

Without AB PM-JAY, the total cost of treatment would have been 1.5 to 2 times higher, leading to savings of over ₹1.25 lakh crore in out-of-pocket expenses and facilitating 7.37 crore free hospital admissions. This impact underscores the scheme's role in transforming healthcare access and affordability.

Increase in Eye Care Procedures: Enhancing Vision for More Lives

The legacy of PM-JAY is also reflected in the significant increase in eye care procedures, enhancing vision for countless individuals and

reaffirming the commitment to comprehensive health coverage for all. The transformative impact of PM-JAY continues to pave the way for a healthier, more equitable society.

Conclusion

The Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (PM-JAY) stands as a testament to India's commitment to equitable healthcare for all, particularly the most vulnerable populations. Over the past six years, this pioneering initiative has significantly transformed the healthcare landscape, providing essential coverage to millions and reducing financial burdens associated with medical expenses. The expansion of benefits to senior citizens and the comprehensive nature of the scheme underscores its commitment to inclusivity and accessibility. As PM-JAY continues to evolve, it not only addresses the immediate healthcare needs of families but also lays the groundwork for a healthier future, ensuring that no one is left behind. The legacy of PM-JAY is one of hope and resilience, as it strives to build a robust healthcare system that prioritizes the well-being of every citizen in India.

References: PIB Releases

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International Day of Sign Languages: Celebrating Deaf Culture and Linguistic Diversity

Indian Sign Language fundamentally differs from Hindi, English, and other spoken languages in India; it possesses its unique structure and is not merely a hand representation of any spoken language.

Introduction:

International Day of Sign Languages, celebrated on September 23rd each year, is a significant occasion that underscores the vital role of sign languages in promoting the rights and recognition of deaf individuals worldwide. Established through the 2017 UN General Assembly Resolution A/RES/72/16, this day highlights the importance of early access to sign language and quality education, which are essential for the growth and development of deaf individuals. The resolution advocates for linguistic and cultural diversity and acknowledges the more than 70 million deaf people globally, with over 80% residing in developing countries and using over 300 different sign languages. **This day is observed in India as Sign Language Day, celebrating Indian Sign Language (ISL) as a natural visual-manual language that fosters communication within the Deaf and hearing communities. ISL is not similar to Hindi, English, or any other spoken language in India. It has its structure and is not a hand representation of any spoken language.** Since its inaugural celebration in 2018 as part of the International Week of the Deaf, Sign Language Day has served as a platform to raise awareness about the significance of sign languages in achieving international development goals and ensuring the full realization of human rights for deaf individuals. The date is significant as it coincides with establishing the World Federation of the Deaf (WFD) in 1951, further reinforcing the global commitment to recognizing and preserving the rich tapestry of sign languages.

Key Initiatives and Launches

1. **2500 New Terms in Indian Sign Language (ISL)**: In collaboration with four organizations, ISLRTC introduced 2500 new ISL terms covering subjects like mathematics, science, and various academic fields. This expansion aims to enhance the existing ISL dictionary and support education.
2. **100 Concept Videos in ISL**: Designed for hard-of-hearing children in the 6th grade, these videos provide detailed explanations of subjects like math and science, using graphics and subtitles to promote inclusive learning.
3. **ISL Dictionary in 10 Regional Languages**: To improve accessibility, the ISL dictionary is now available in ten regional languages, making it easier for diverse communities to engage with ISL.
4. **Educational Animated Videos in ISL**: These videos focus on moral values and provide a new learning experience for hard-of-hearing children, fostering an inclusive educational environment.
5. **Deaf Role Model Videos in ISL**: This initiative aims to inspire and motivate hard-of-hearing children by showcasing successful deaf individuals who serve as role models.
6. **7th Indian Sign Language Competition**: The event also featured the winners of the 7th Indian Sign Language Competition, a national-level contest showcasing the creativity and skills of students with hearing disabilities.

Schemes for Helping Persons with Disabilities

The Department of Empowerment of Persons with Disabilities (DEPwD) in India implements several schemes and provisions to enhance the quality of life for individuals with disabilities, including hard-of-hearing students. Here's a breakdown of the major initiatives:

1. Assistance to Disabled Persons for Purchase/Fitting of Aids/Appliances (ADIP)

This scheme funds various Implementing Agencies for distributing aids and assistive devices to eligible individuals with disabilities nationwide. Notably, it includes provisions for Cochlear Implant Surgery for children with hearing impairments.

2. Financial Assistance for Deaf Colleges

DEPwD offers financial support to colleges specifically for deaf students. This assistance is available for colleges affiliated with UGC in five regions of India, ensuring that hard-of-hearing students have access to quality education.

3. Scholarships for Students with Disabilities (Divyangjan)

An umbrella scheme for hard-of-hearing boys and girls who cannot speak provides scholarships across six components for students with disabilities.

4. National Institutes and Regional Centers

Two key institutes, the A**li Yavar Jung National Institute for Speech & Hearing Disabilities** in Mumbai and the **Indian Sign Language Research & Training Centre (ISLRTC)** in New Delhi, focus on hearing and speech disabilities. Additionally, **25 Composite Regional Centres (CRCs)** have been established to provide rehabilitation services, skill development training, and awareness programs.

5. Diploma in Teaching Indian Sign Language

ISLRTC offers a diploma course in teaching Indian Sign Language, with tuition fees waived for students registered with the Unique Disability ID (UDID)[5]. They have also developed a comprehensive sign language dictionary of 10,500 words to support the educational needs of deaf students.

6. Other Steps

A robust constitutional framework underpins the Indian government's commitment to supporting persons with disabilities. A significant milestone in this journey is the Rights of Persons with Disabilities (RPwD) Act of 2016, which emphasizes inclusive education as a fundamental right. Under this Act, educational institutions are empowered to ensure that children with benchmark disabilities, including Deaf and Dumb children—those with a disability of 40% or more—have access to free, quality education in an inclusive environment until the age of 18. The Act also promotes equity by mandating a minimum of 5% reservation for persons with disabilities in government and aided higher educational institutions.

Complementing these efforts, the Samagra Shiksha Scheme, launched by the Department of School Education & Literacy, plays a vital role by providing dedicated support for Inclusive Education for Children with Special Needs (CwSN). This comprehensive initiative ensures that CwSN receives essential resources, including financial support for aids and educational materials, alongside tailored interventions that foster their participation in schools from preschool through class XII. Notably, a stipend of Rs. 200 per month supports girl children with disabilities, underscoring the commitment to inclusivity and equity in education. These efforts collectively enhance the educational landscape, empowering all children to thrive and succeed.

Significance of the Day

International Sign Language Day reminds us to preserve sign languages as vital components of cultural and linguistic diversity. It also highlights the importance of creating positive awareness about Indian Sign Language (ISL) across all sections of society.

References: PIB releases

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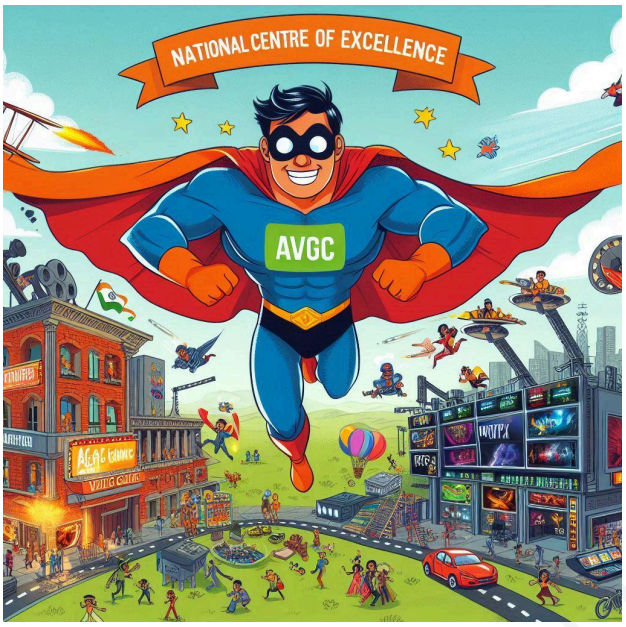
National Centre of Excellence for AVGC: A Game-Changer for India's Animation and Entertainment Industry



Introduction

The AVGC (Animation, Visual Effects, Gaming, Comics) sector is set to be the future of the media and entertainment industry. Movies like Baahubali and RRR have introduced a new vision for portraying historic and fantasy themes in India, inspiring films like PS1 and *Kalki*. According to the FICCI-EY 2024 report, **India now boasts the second-largest anime fan base globally** and is projected to contribute 60% to the worldwide growth in anime interest in the coming years. In a significant step toward making India a global hub for AVGC, the Union Cabinet recently approved the establishment of a National Centre of Excellence (NCoE) for Animation, Visual Effects, Gaming, Comics, and Extended Reality (AVGC-XR) in Mumbai.

NCoE Background

NCoE will be set up as a Section 8 Company under the Companies Act, 2013 in India with Federation of Indian Chambers of Commerce & Industry and Confederation of Indian Industry representing the industry bodies as partners with the Government of India. The establishment of the NCoE follows the Union Minister of Finance and Corporate Affairs 2022-23 budget announcement, which proposed the

creation of an AVGC task force in the country. NCoE **AVGC aims at creating a world class talent pool in India to cater to the Indian as well as global entertainment industry**. Provisionally named the Indian Institute for Immersive Creators (IIIC), this center aims to revolutionize the AVGC sector and foster innovation in immersive technologies. It will be modeled after renowned institutions like the Indian Institutes of Technology (IITs) and Indian Institutes of Management (IIMs).

Salient Features of NCOE

1	NCOE will also extensively focus on creation of India's IP for both domestic consumption and global outreach
2	It will function as an incubation centre by providing resources for nurturing startups and early stage companies in AVGC-XR field
3	It will also position India as a content hub for providing state-of-the-art content
4	It will enhance India's soft power globally and attracting foreign investment into MGE sector
5	To be set up in Mumbai, Maharashtra and FICCI and CII to represent industry bodies as partners with the Government of India
6	To act as a pinnacle institution to anchor the AVGC-XR ecosystem in the country
7	It will foster R&D and will bring together experts from various science and art fields that can lead to major breakthroughs in AVGC-XR

Objective of NCoE (IIIC)

India's animation sector is witnessing remarkable growth, driven by increasing demand for films, visual effects (VFX), gaming animation and engaging mobile content. This surge presents exciting opportunities for skilled and enthusiastic animators. Boasting a growth rate of 25% and an estimated value of ₹46 billion by 2023 (FICCI-EY Report 2023), the

animation industry in India is thriving and offers a promising future for passionate young talent.

With rapidly evolving technology and increasing internet penetration all across the country, coupled with one of the cheapest data rates, the usage of AVGC-XR globally is poised to grow at an exponential pace. This creates abundant opportunities, particularly through the National Centre of Excellence (NCoE). Below are some of the key objectives of the NCoE (IIIC):

- Focusing of creating Indian IP
- Leveraging our cultural heritage in new age
- Create a multiplier effect in the industry
- An industry led initiative, in partnership with state and academia
- Integrated focus on education, skilling industry, development, innovation
- Hub and spoke model of development to be followed
- IIIC as the hub and several center's as its spokes dedicated innovation and research fund to promote start-up ecosystem

Six key things to know about NCoE

1. Films like RRR, Baahubali, The Lion King, and Avatar have demonstrated the immense potential of animation and immersive technology! India's Animation, Visual Effects, Gaming, and Comics (AVGC) sector is poised for explosive growth, with vast opportunities for employment and innovation.
2. Immersive technologies create lifelike, interactive experiences. These include Virtual Reality (VR), Augmented Reality (AR), Mixed Reality (MR), and 3D modeling and animation. Whether you're a 3D animator, VR/AR creator, game developer, or comic artist, this is your playground.
3. **The NCoE is your gateway to mastering immersive tech.** The National Centre of Excellence will offer cutting-edge training and

integrate India's rich cultural heritage with modern technology, fostering the creation of indigenous intellectual property (IP) and building the future of India's digital creative economy.

4. The NCoE, which is estimated to generate 5,000 jobs, **is modeled after premier institutions like IITs and IIMs**. The center will provide world-class infrastructure, state-of-the-art technology, and specialized skills to build a strong talent pool.
5. **Hands-on learning and career pathways**. Students will gain practical experience through industry-driven courses, ensuring they are job-ready upon graduation. You'll also have access to internships, mentorships for aspiring startups, and a curriculum focused on content creation - for India, for the world!
6. **Collaboration and innovation**. The NCoE will create a dynamic ecosystem for research, development, and innovation in immersive technologies by fostering partnerships between the central and state governments, academia, and industry. This is where India's next-gen creators will thrive.

Conclusion

The Union Cabinet's approval of the National Centre of Excellence (NCoE) for AVGC is pivotal in strengthening India's media and entertainment industry. This initiative is set to boost the economy while creating new job opportunities in the rapidly growing AVGC sector. As a global hub for filmmaking, India's advancements in technology and infrastructure will enable the production of high-quality content, positioning the country as a leader in technological innovation and creativity.

Reference: PIB releases

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Trivia Treasures: Unearth Fun Facts!

1. Who are the signatories to the first legally binding international treaty on AI?
2. Which bone in the knee might have helped humans to start walking upright as per the researchers?
3. Why has the coastal city of Linhares in Brazil been in the news?
4. Why has the SpaceX Polaris Dawn Mission been in the news?
5. Why is green hydrogen called “green hydrogen“?
6. Which astronauts have been the last to walk on the moon?
7. Who is the first Indian to win the Nobel prize and in which field and who is the most recent Indian origin recipient of the Nobel prize?
8. What increase in temperature limit has been kept in mind to prevent catastrophic climate change, over and above the pre industrial temperature of earth's atmosphere?
9. What is the difference between a parasite and an epiphyte?

-xxxx-

Answers on next page

Answers

1. EU, USA & UK

2. The lateral fabella, a bone in the knee

3. The Coastal city of Linhares in Brazil has recently, legally recognized its iconic waves as living beings with intrinsic rights.

4. For the first time non-professional private individuals, Jared Issacman and Sarah Gills have successfully carried out a spacewalk traveling in the Dragon capsule , carried by the Polaris Dawn Mission.

5. Green Hydrogen is made by powering electrolysers which split water into Hydrogen and Oxygen with renewable energy, that is why it is called Green Hydrogen.

6. Gene Cernan and Harrison Schmitt

7. Rabindranath Tagore, Literature. Abhijit Banerjee, Economics

8. 1.5 degree Celsius

9. Parasite: An organism that lives in or on an organism of another species (its host) and benefits by deriving nutrients at others' expense.

Epiphyte: A plant that derives its moisture and nutrients from air and rain and grows usually on another plant. It is also called the air plant.

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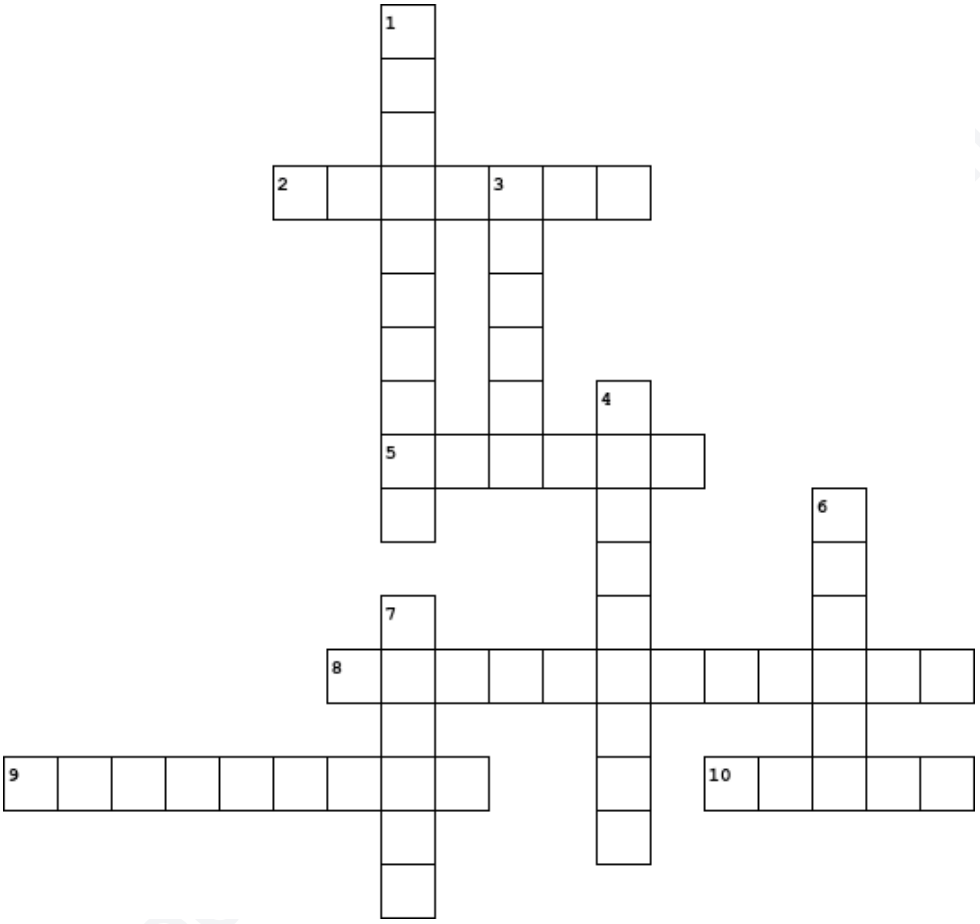
The K&L Crossword Craze #01

Challenge your mind with this engaging trivia crossword quiz. Grab a pencil and see how many answers you can fill in—let's see if you can conquer the grid! The solved puzzle will appear in the next issue.



Across

2. A computer program or an artificial intelligence which conducts a conversation via auditory or textual methods.[4,3]

5. The Nobel Peace Prize is awarded by this country. [6]

8. A critical threshold that, when crossed, can lead to large, irreversible changes in the climate system. [7,5]

9. The _____, also known as the Hindu Kush-Karakoram-Himalayan system (HKKH), is a mountainous region located in the west and south of the Tibetan Plateau.[5,4]

10. Vexillology is the study of _____.[5(plural)]

Down

1. The contested borderline between Pakistan and Afghanistan.[6,4]

3. Geetanjali Shree won the 2022 International _____ Prize for her novel Tomb of Sand (Ret Samadhi).[6]

4. A geographic region that connects the American continents.[6,3]

6. The rivers Zambezi, Nile and Congo, flows in this continent.[6]

7. The _____ Medal is considered the Nobel equivalent of Mathematics.[6]

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