



# Chapter - 11: Industry

## Introduction

The **Department for Promotion of Industry and Internal Trade (DPIIT)** was established in **1995** and was **reconstituted in 2000** with the merger of the Department of Industrial Development. The Department was earlier called Department of Industrial Policy & Promotion; and was renamed **DPIIT in 2019**. **In 2018**, the matters related to e-Commerce were transferred to the **Department and in 2019**, the Department was given charge for matters related to internal trade, welfare of traders and their employees and startups.

- **The role and functions of the Department, primarily include:**
- **Formulation and implementation** of industrial policy and strategies for industrial development in conformity with the development needs and national objectives;
- **monitoring the industrial growth**, in general, and performance of industries specifically assigned to it, in particular, including advice on all industrial and technical matters;
- **formulation of Foreign Direct Investment (FDI) Policy** and promotion, approval and facilitation of FDI;
- **formulation of policies** relating to Intellectual Property Rights in patents, trademarks, industrial designs and geographical indications of goods and administration of regulations, rules made there under.

## PM GatiShakti National Master Plan

- To address logistics challenges and enhance efficiency, cost reduction, and collaboration across departments in India, there's a need for integrated planning and infrastructure development.
- **PM GatiShakti, initiated in 2021**, aims to achieve this through a "**whole of government approach**".
- **PM GatiShakti consists of two main components:**
  - **Development of a GIS-based National Master Plan** to integrate information from various sectors like roads, railways, aviation, and agriculture. This ensures timely and accurate data accessibility for all departments.
  - **Establishment of a three-tier institutional arrangement** to synchronize efforts of line ministries/departments for the development of multi-modal infrastructure and economic zones.

## Institutional Framework

- The **Empowered Group of Secretaries (EGoS)** under the Cabinet Secretary oversees **PM GatiShakti** implementation.
- At the central level, **23 infrastructure** and user ministries are part of **EGoS**.
- An integrated Multimodal Network Planning Group (**NPC**) includes representation from various connectivity infrastructure ministries/departments.
- Ministries involved in NPC include Railways, Road Transport and Highways, Port, Shipping and Waterways, Civil Aviation, Power, New and Renewable Energy, and Telecommunication.
- The Logistics Division of **DPIIT** serves as the Secretariat and **Technical Support Unit (TSU) with 7 Directors, 14 subject experts, and 10 support staff**.
- Each state replicates the institutional mechanism of **EGoS, NPG, and TSU** at the state level to

address integration challenges within their infrastructure and logistics networks.

- This ensures a federal-level implementation of the **PM GatiShakti framework**.

### **National Master Plan**

- The **National Master Plan (NMP)** portal contains comprehensive details of existing infrastructure, logistics facilities, and planned/proposed projects across various sectors.
- It includes over **1,400** data layers from central ministries and states, covering areas such as roads, rail networks, aviation, port infrastructure, utility networks, economic zones, logistics assets, forests, and existing and upcoming projects.
- The **portal aims to identify critical infrastructure gaps and provide valuable insights for decision-making.**
- State governments and central ministries can utilize the NMP portal to plan their investments in economic activities such as Textile Parks, fishing clusters, and agro-processing centers.
- The portal enables them to assess the current multimodal connectivity status, including proximity to highways, airports, rail, ports, etc., thereby **facilitating informed decision-making processes.**

### **National Logistics Policy**

- The **National Logistics Policy (NLP) was launched in 2022.**
- It provides a **comprehensive framework** for the logistics sector, aiming at efficiency and human resource development.
- It complements the **PM GatiShakti National Master Plan**, which focuses on integrated infrastructure development.
- The NLP **aims to streamline processes**, regulatory frameworks, skill development, and technology adoption.
- Its vision is to create a technologically enabled, integrated, cost-efficient, resilient, sustainable, and trusted logistics ecosystem for inclusive growth.
- Implementation of the **NLP** will be monitored through the **Empowered Group of Secretaries (EGoS)** established under the **PM GatiShakti National Master Plan.**
- A "**Services Improvement Group**" (**SIC**) has been set up under the EGoS to monitor parameters not covered by the **Network Planning Group (NPG).**
- All states and **union territories (UTs)** have been fully integrated into the NLP framework.

### **Logistics Ease**

- **Logistics Ease Across Different States (LEADS)** was established in **2018** to evaluate logistics efficiency among states and **Union Territories (UTs).**
- Its main goals include ranking **states/UTs** based on logistics performance, facilitating stakeholder interactions, and devising action plans.
- Initially, LEADS relied on perceptions and covered both domestic and international trade segments.
- **LEADS 2021** revamped its framework to incorporate both objective data and subjective perceptions from private sector stakeholders.
- **LEADS 22** continues to build on this framework, becoming more detailed to include new initiatives like **PM GatiShakti National Master Plan** and emphasizing on-ground developments.
- **The index comprises three major indicators:** infrastructure, services, and regulatory environment to assess the state logistics ecosystem.

### **Unified Logistics Interface Platform**

- **Unified Logistics Interface Platform (ULIP)** aims to **streamline logistics operations.**
- **Objective:** Simplify processes, enhance efficiency, increase transparency and visibility, and reduce costs and time.
- ULIP **offers API-based integration for users.**
- Users can access data for activities such as multi-modal track and trace, authentication of people and vehicles, document digitization, process automation at yards and gates, and discovery services.

- Benefits include **reduced operational costs and time savings in logistics.**

## **Foreign Direct Investment Policy**

- The **Department for Promotion of Industry and Internal Trade (DPIIT)** oversees policies regarding **Foreign Direct Investment (FDI) in India.**
- **DPIIT** manages data on inward **FDI**, based on information from the **Reserve Bank of India.**
- India has a liberal FDI policy allowing up to **100% FDI** in most sectors/activities under the automatic route to attract higher levels of investment.
- The **Foreign Investment Promotion Board (FIPB)** was abolished in **June 2017**, simplifying the process for granting FDI approvals.
- Approval processes for FDI are now handled by relevant ministries/departments.
- **DPIIT** administers the Foreign Investment Facilitation Portal (**FIF Portal**) to facilitate clearance of applications filed through the approval route.
- **Since August 2022**, the FIF Portal has been integrated with the National Single Window System (**NSWS**), enabling filing of Electronic Development Interface (EDI) proposals through the **NSWS portal for government approval.**

## **Make in India**

- The '**Make in India**' initiative was launched in **2014** to achieve various objectives:
  - Facilitate investment.
  - Foster innovation.
  - Build best-in-class infrastructure.
  - Make India a hub for manufacturing, design, and innovation.
- It is a part of the '**Vocal for Local**' initiatives aiming to promote India's manufacturing domain globally, with the slogan "**Make in India for the World.**"
- Currently, the initiative focuses on **27 sectors under Make in India 2.0.**
- Coordination for action plans:
  - The Department of Industrial Policy and Promotion coordinates action plans for **15 manufacturing sectors.**
  - The Department of Commerce coordinates plans for **27 service sectors.**
- Investment outreach activities involve collaboration with ministries, state governments, and Indian Missions abroad to enhance international cooperation and attract both domestic and foreign investment.

## **Invest India**

- Invest India is the **National Investment Promotion and Facilitation Agency of India** and acts as the first point of reference for investors. It is transforming the country's investment climate by simplifying the business environment for investors.
- It has been set up as a joint venture (not for profit) company between Department of Industrial Policy and Promotion, Federation of Indian Chambers of Commerce & Industry (**FICCI**), **CII**, **NASSCOM** and various state governments.

## **One District One Product**

- The central government launched the **One District One Product (ODOP)** initiative across various states and union territories (UTs) of India.
- **ODOP** aims to unlock the economic potential of each district, fostering growth, creating jobs, and promoting rural entrepreneurship, aligning with the vision of Aatmanirbhar Bharat (**self-reliant India**).
- The ODOP initiative is closely integrated with the '**Districts as Export Hub (DEH)**' program led by the Department of Commerce.
- The Department for Promotion of Industry and Internal Trade (**DPIIT**) plays a significant role as a major stakeholder in implementing **ODOP.**

## **Production Linked Incentive Scheme**

- India announced Production Linked Incentive (**PLI**) schemes for **14 key sectors**.
- The schemes aim to support India's vision of becoming 'Atmanirbhar' (self-reliant) by enhancing manufacturing capabilities and exports.
- The total outlay for these schemes is **Rs. 1.97 lakh crore**.
- The objective is to stimulate production, employment, and economic growth over the next **5 years** and beyond.
- **PLI schemes** focus on attracting investments in sectors with core competency and cutting-edge technology.
- They aim to make Indian companies and manufacturers globally competitive to penetrate global markets and integrate with global value chains.

### India Industrial Land Bank

- The Department has established a national land bank by integrating state industrial GIS systems with the **India Industrial Land Bank (IILB)**.
- The **IILB offers** a GIS-enabled database of industrial areas, including clusters, parks, nodes, and zones nationwide.
- Its purpose is to assist investors in identifying suitable locations for investment.
- Information provided includes details on internal infrastructure, connectivity to key points such as airports, highways, railways, and dry ports, available raw materials, and **plug-and-play facilities**.
- A **mobile app was launched in 2020** for iOS and Android platforms to enhance investor outreach.
- Additional features were introduced in **2021** to improve the functionality of the mobile app.

### Public Procurement

- The Public Procurement (Preference to Make in India) Order 2017 (**PPP-MII Order**) was established in **2017 under Rule 153 (iii)** of the General Financial Rules **2017** to boost domestic value addition in public procurement.
- It applies to the procurement of goods, services, and works (including turnkey works) by central ministries/departments, their attached/subordinate offices, autonomous bodies under the Government of India, and government companies defined in the **Companies Act**.
- Additionally, **five states** have adopted and implemented this order.
- A Standing Committee has been formed to oversee the implementation of the **PPP-MII Order**.
- A Public Procurement Cell within the Department has been set up to monitor grievances related to violations of the **PPP-MII Order**.

### Industrial Policy

- Industrial policies have **played a significant role** in shaping India's industrial landscape and competitiveness since independence.
- Two key industrial policies were the **1956** Industrial Policy Resolution, which aimed for a socialistic pattern of society, and the **1991** Industrial Policy, focused on economic and industrial liberalization.
- A new policy, the "**Statement on Industrial Policy, 2023**," is under development with the theme "**Make in India for the World**," aligned with **Vision India@2047**.
- The draft policy emphasizes fostering a progressive, innovative, and competitive industrial ecosystem through an action-oriented approach.
- It **aims to strengthen and coordinate** efforts across the entire industrial ecosystem with **six core objectives**:
  - Focus on competitiveness and capability enhancement.
  - Economic integration and advancement in the **Global Value Chain**.
  - Promotion of India as an attractive investment destination globally.
  - Nurturing innovation and entrepreneurship, particularly in knowledge-based industries and sustainable ecosystems.
  - Sector-agnostic approach with a long-term perspective on addressing existing challenges and future dynamics.
  - Emphasis on fostering circular and sustainable eco-systems.

- The policy aims to address both current challenges and anticipated future trends in the industrial sector.

## **Startup India**

- Startup India initiative **launched in 2016** to foster entrepreneurship and innovation.
- Aims to create an ecosystem conducive to startup growth.
- **Three major pillars:** simplification and handholding, funding support and incentives, industry-academia partnership and incubation.
- Strategic amendments made to existing policy ecosystem post-launch.
- As of **May 15, 2023, 99,371 startups recognized by DPIIT across 57 sectors in 674 districts.**
- Every State and UT represented, with over **10.49 lakh jobs created since 2016.**

### **Fund of Funds for Startup Scheme**

- **DPIIT** (Department for Promotion of Industry and Internal Trade) established a Fund of Funds (**FFS**) with a corpus of **INR 10,000 crore.**
- The primary aim of the scheme is to address the funding requirements of startups.
- Objectives include accelerating innovation-driven entrepreneurship and mobilizing larger equity-like resources for startups.
- **FFS does not make direct investments in startups.**
- Instead, it provides capital to SEBI-registered **Alternate Investment Funds (AIFs).**
- AIFs, in turn, invest in growing Indian startups through equity and equity-linked instruments.

### **Seed Fund Scheme**

- DPIIT initiated the Startup India Seed Fund Scheme (**SISFS**) with a budget of **INR 945 crore.**
- **SISFS** aims to aid startups in various stages including proof of concept, prototype development, product trials, market entry, and commercialization.
- Approximately **3,600 entrepreneurs** are projected to benefit from this scheme over the next four years.
- The support will be channelled through **300 incubators** to provide assistance to startups.

### **Credit Guarantee Scheme for Startups**

- **DPIIT** (Department for Promotion of Industry and Internal Trade) notified the Credit Guarantee Scheme for Startups (**CGSS**).
- **CGSS** is designed to provide credit guarantees to loans given by Scheduled Commercial Banks, Non-Banking Financial Companies (**NBFCs**), and **SEBI-registered** Alternative Investment Funds (**AIFs**).
- The scheme aims to offer credit guarantees up to a defined limit for loans extended by Member Institutions (**MIS**) to support eligible borrowers.
- Its objective is to facilitate easier access to financing for startups, thereby fostering growth and innovation within the startup ecosystem.

### **Startup India Portal**

- The Startup India portal is a **centralized platform** for startups and stakeholders in the startup ecosystem to network and exchange knowledge.
- Eligible companies can apply on the portal to get recognized as startups by the **Department for Promotion of Industry and Internal Trade (DPIIT).**
- It offers opportunities for startups and stakeholders to engage in innovation challenges and programs.
- The portal serves as a repository of knowledge, providing details on various schemes and policies available for startups.

### **Income Tax Exemptions**

- The **Income Tax Act** allows eligible startups to **deduct 100% of the profits** and gains derived from their business for **3 consecutive assessment years out of 10 years**.
- This deduction is subject to certain conditions and is optional for the assessee.
- Startups incorporated on or after **2016** but before **April 2023** are eligible for income tax exemption.
- To access these benefits, startups must obtain a Certificate of Eligibility from the **Inter-Ministerial Board (IMB)**.

### ASCEND

- **ASCEND stands for Accelerating Startup Caliber & Entrepreneurial Drive.**
- It is a program aimed at fostering entrepreneurship and innovation in the **North-Eastern states**.
- The goal of ASCEND is to **support and encourage** more startups to emerge from this region.
- It focuses on **providing resources and assistance** to aspiring entrepreneurs in the North-East.
- ASCEND aims to **create a conducive environment** for startups to thrive in the North-Eastern states.

### Ease of Doing Business

- **DPIIT** is leading efforts to enhance the business regulatory environment in India.
- A **cohesive communication campaign** is initiated by **DPIIT**, utilizing platforms like Twitter, Instagram, and Facebook to disseminate information to stakeholders.
- Ministries and departments are instructed to create a dedicated section on their websites for '**Ease of Doing Business**'.
- The aim is to **raise awareness among professionals** about past reforms through an extensive outreach campaign.
- Simultaneously, the agenda includes introducing new reforms to further broaden the scope of reforms.

### Reducing Compliance Burden

- **DPIIT** (Department for Promotion of Industry and Internal Trade) serves as the central department for coordination with ministries and states/Union Territories (UTs) to reduce compliance burden on citizens and businesses.
- The **main objective is to enhance both ease of doing business and ease of living** by simplifying, rationalizing, digitizing, and decriminalizing government-to-business and citizen interfaces across various ministries, states, and UTs.
- **DPIIT launched the Regulatory Compliance (RC) Portal** to monitor actions taken regarding compliance reduction across central ministries/departments and states/UTs.
- According to data from the RC Portal, **over 39,000** compliances have been reduced collectively by central ministries/departments and states/UTs as part of this initiative.
- Decriminalization of minor offences under existing Acts/Rules is a key focus area of this exercise.
- **Ministries/departments and states/UTs** have extensively reviewed Acts/Rules under their jurisdiction and proposed provisions for rationalization.
- **DPIIT** engaged in several interactions with Industry Associations to understand their challenges and shared their suggestions for decriminalization with relevant authorities for necessary action.

### Promoting Startups in Biotechnology

- In India, there's a concerted effort to promote **bio-entrepreneurship**.
- This effort includes establishing bio-clusters, bio-incubators, technology transfer offices (**TTOs**), and bio-connect offices in research institutes and universities.
- These facilities aim to provide a conducive environment for **bio-tech startups** to thrive.
- Support in the form of seed funding and equity funding is offered to these startups as part of the initiative.

### Jan Vishwas (Amendment of Provisions) Act, 2023

- The **Jan Vishwas (Amendment of Provisions) Bill, 2023** has been enacted into law.
- It removes criminal penalties from **183 provisions across 42 Acts**.
- These Acts are managed by **19 different** ministries/departments.
- The Act aims to **rationalize criminal provisions**.
- It ensures citizens, businesses, and government departments can operate without fear of imprisonment for minor, technical, or procedural defaults.

## Intellectual Property Rights

- **DPIIT** (Department for Promotion of Industry and Internal Trade) is responsible for administering various laws related to **Intellectual Property Rights (IPR)**.
- These laws include patents, trademarks, industrial designs, geographical indications of goods, copyrights, and semiconductor integrated circuit layout designs.
- **DPIIT is the nodal department for vetting Memorandums of Understanding (MoUs)** related to **IPR** for the Cabinet and other government ministries/departments.
- It also handles international negotiations on IPRs and is the nodal department for dealing with the **World Intellectual Property Organization (WIPO)**.
- The Controller General of Patents, Designs, and Trademarks (**CGPDTM**), a subordinate office under the Ministry, is responsible for granting patents and registering trademarks, designs, and geographical indications.
- Copyright registration is overseen by the Registrar of Copyright Office, which operates under the **CGPDTM**.
- These offices are located in Delhi, Kolkata, Mumbai, Chennai, and Ahmedabad, with the Central IP Training Academy situated in Nagpur.

## National IPR Policy

- The **National IPR Policy outlines the future trajectory** for intellectual property in India, acknowledging the nation's creative and innovative potential and aiming to harness these energies for a better future.
- It acknowledges India's existing **TRIPS**-compliant legal, administrative, and judicial framework for safeguarding IPRs, emphasizing the use of international flexibilities to address developmental concerns.
- The Policy reaffirms India's commitment to the Doha Development Agenda and the **TRIPS agreement**.
- **Objectives of the Policy include:**
  - **IPR Awareness:** promoting understanding of the economic, social, and cultural benefits of IPRs across society.
  - **Generation of IPRs:** fostering the creation of intellectual property.
  - **Legal and Legislative Framework:** establishing robust and balanced IPR laws to serve both rights owners and the public interest.
  - **Administration and Management:** modernizing and strengthening service-oriented IPR administration.
  - **Commercialization of IPRs:** enhancing the value of intellectual property through commercialization.
  - **Enforcement and Adjudication:** strengthening mechanisms to combat IPR infringements.
  - **Human Capital Development:** expanding resources and capacities for teaching, training, research, and skill-building in **IPRs**.

## Productivity and Quality

- **DPIIT** serves as the central department for enhancing productivity and quality within the industrial sector.
- The **National Productivity Council (NPC)** represents India in the Asian Productivity Organisation (**APO**), based in Tokyo, of which India is a founding member.
- **NPC** engages in various activities such as consultancy, training, workshops, seminars, conferences, research, monitoring, evaluation of government schemes, projects, and information

dissemination in collaboration with **APO**.

- The Quality Council of India (**QCI**) operates as an autonomous body under **DPIIT's** purview.
- **QCI's** objectives include establishing an accreditation framework in India, conducting independent third-party assessments of products, services, and processes, and propagating the quality movement in the country through a National Quality Campaign.
- **QCI** adheres to international standards and protocols, following norms set by bodies like **IAF and APAC**.
- **QCI** promotes the adoption of quality standards such as **ISO 9001 Series** (Quality Management Systems), **ISO 14001 Series** (Environment Management Systems), **ISO 22000 Series** (Food Safety Management Systems), and certification and inspection bodies through accreditation services provided by **NABCB**.
- **In addition to NABCB, there are four other boards:** NABET (National Accreditation Board for Education and Training), **NABH** (National Accreditation Board for Hospitals and Healthcare Providers), **NABL** (National Accreditation Board for Testing and Calibration Laboratories), and **NB(QP)** (National Board for Quality Promotion), offering accreditation certification in education, health, and quality promotion, respectively.

## National Institute of Designs

- The **National Institute of Designs (NIDs)** are esteemed institutions for design education and research, recognized internationally.
- These institutes operate autonomously under **DPIIT**.
- The first **NID** was established in Ahmedabad, Gujarat, in **1961**, following recommendations from the 'India Report' in **1958**.
- Various public sector enterprises were established with specific objectives:
  - **Cement Corporation of India Ltd.:** Established in **1965** to set up cement factories and achieve self-sufficiency in cement production.
  - **Heavy Engineering Corporation Ltd. (Ranchi):** Incorporated in **1958** to achieve self-reliance in designing and manufacturing heavy equipment, especially for steel plants.
  - **HMT Ltd.:** Manages food processing machinery business and auxiliary business divisions.
  - **Hindustan Salts Ltd.:** Established in **1958**, engaged in manufacturing various types of salt, bromine, and magnesium chloride.

## Micro, Small and Medium Enterprises

- The **MSME** sector in India has evolved significantly over the past seventy years, becoming a vital part of the economy.
- **MSMEs contribute to employment generation**, particularly in rural and backward areas, aiding in industrialization and reducing regional disparities.
- They complement large industries as ancillary units and contribute significantly to the socio-economic development of the nation.
- The **Ministry of Micro, Small & Medium Enterprises (MSME)** aims to foster a vibrant sector by collaborating with relevant ministries, state governments, and stakeholders to support existing enterprises and encourage the establishment of new ones.
- **In 2007**, the Ministry was formed through the merger of the erstwhile Ministry of Small Scale Industries and the **Ministry of Agro and Rural Industries**.
- The Ministry designs policies, facilitates programs, and monitors their implementation to assist **MSMEs in scaling up**.
- While the primary responsibility for **MSME promotion and development** lies with state governments, the Government of India supplements these efforts through various initiatives.
- The Ministry and its organizations support states in promoting entrepreneurship, generating employment, and enhancing the competitiveness of **MSMEs** in the evolving economic landscape.

## New Definition of MSMEs

- **In 2020**, a new classification for manufacturing and service enterprises was introduced.
- Guidelines were provided to facilitate entrepreneurs under this new classification.
- The new criteria eliminated the distinction between manufacturing and service sectors.
- The criteria now include turnover in addition to investment in plant and machinery.



- **Micro, small, and medium enterprises (MSMEs) are classified based on investment and turnover:**
  - **Micro:** Investment ≤ ₹1 crore and turnover ≤ ₹5 crore.
  - **Small:** Investment ≤ ₹10 crore and turnover ≤ ₹50 crore.
  - **Medium:** Investment ≤ ₹50 crore and turnover ≤ ₹250 crore.
- Retail and wholesale trades were included as MSMEs from **July 2021**.
- Street vendors could register as retail traders by **August 9, 2021**, according to the Ministry of **MSME**.
- Benefits for retail and wholesale trade MSMEs, including street vendors, are limited to priority sector lending.
- The **Ministry of MSME** launched the **Udyam Assist Platform** in **January 2023** to formalize informal micro enterprises as MSMEs.

### MSME Samadhaan

- The Micro, Small and Medium Enterprises Development (**MSMED**) **Act, 2006** focus on addressing issues related to delayed payments to Micro and Small Enterprises (**MSEs**) by buyers.
- If payment is delayed beyond **45 days**, MSE suppliers can approach the Micro and Small Enterprises Facilitation Council (**MSEFC**) established under the Act in all states/UTs.
- According to **Section 16** of the **MSMED Act**, delayed payments to supplier units incur compound interest with monthly interest rates set at **three times the bank rate notified by the Reserve Bank**.
- **In 2017**, to further the objectives of the **MSMED Act**, the Ministry of MSME launched a portal which provides information about pending payments to MSEs by individual CPSEs/central ministries, state governments, and other buyers.

### Sambandh and Sampark

- Ministry of MSME launched "**MSME-SAMBANDH Portal**" in **2017**.
- **Purpose:** Monitoring procurement by central government ministries, departments, and Central Public Sector Enterprises.
- Allows sharing of required products/services from Micro and Small Enterprises (**MSEs**).
- Launched "**MSME SAMPARK**" job portal in **2018**.
- **Aim:** Facilitate interaction between jobseekers (MSME Technology Centre trainees/students) and recruiters.
- Enables **registration for both job seekers and recruiters**.
- Designed for **mutually beneficial interaction** between parties.

### Creation of Modern Processes for Increasing the CHAMPIONS

- Output and National Strength (**CHAMPIONS**) portal launched in **2020**
- **ICT-based technology** system aimed at empowering smaller units
- Provides assistance and support to **MSMEs**
- **Aims to help smaller units** grow and seize new business opportunities
- Offers guidance and handholding to navigate current challenges and future prospects

### 'Udyam Registration' Portal

- **In July 2020**, the Ministry of **MSME** launched the **Udyam Registration Portal** to streamline the **MSME** registration process.
- The registration process is free, paperless, and digital, aiming to make it more accessible and convenient for **MSMEs**.
- The portal is interconnected with various government platforms including **Government e-Marketplace (GeM), Income Tax, GST, TReDs, and NCS (National Career Service) portals**.
- The government has exempted **MSMEs** from the mandatory requirement of having **GSTIN** (Goods and Services Tax Identification Number) under the provisions of the **CGST Act, 2017**.

### **Khadi and Village Industries Commission**

- Khadi and Village Industries Commission (**KVIC**) is a statutory organization established under an **Act of Parliament**.
- It was established in accordance with the Acts amended in **1987 and 2006**.
- **KVIC operates** under the Ministry of **MSME** (Micro, Small & Medium Enterprises).
- Its primary objective is to promote and develop **Khadi and Village Industries (KVI)**.
- **KVIC aims** to provide employment opportunities in rural areas, thereby strengthening the rural economy.
- It is recognized as a major organization in the decentralized sector.
- **KVIC focuses** on generating sustainable non-farm employment opportunities in rural areas.
- The organization emphasizes achieving this goal with a **low per capita investment**.

## **Textiles**

- The **Indian textiles industry is among the largest globally**, boasting a significant raw material base and manufacturing prowess throughout its value chain.
- It stands out for its strength in **both hand-woven and capital-intensive mill sectors**.
- The mill sector comprises **3,400 textile mills** with an installed capacity exceeding **50 million spindles** and **8,42,000 rotors**, ranking second worldwide.
- Traditional sectors like handloom, handicrafts, and small-scale power loom units are major employment sources, particularly in rural and semi-urban regions.
- The industry's products have deep-rooted connections with India's agriculture, culture, and traditions, catering to both domestic and export markets.
- In terms of value, the textile industry contributes **7% to industry output and 2% to India's GDP**, while representing **15% of the nation's** export earnings.
- With over **45 million people** directly employed, it stands as one of the largest employment generators in the country.

### **Technical Textiles**

- Technical textiles represent the **future of the textiles** industry due to their diverse applications and superior properties.
- **High tenacity fibers are highlighted as the lightest and toughest fabrics available**.
- These textiles find use in various sectors including automobile, aerospace, architecture, building, healthcare, sports, and apparel industries.
- **Eleven Focus Incubation Centres (FICs)** have been established on a plug-and-play model.
- **Five FICs are located in Centers of Excellence (COEs)** and **six** in Indian Institutes of Technology (IITs) in Delhi, Bombay, Kanpur, and Kharagpur.
- The purpose of these centers is to assist potential entrepreneurs in entering the technical textiles industry.

### **Integrated Processing Development Scheme**

- The Ministry is implementing the **Integrated Processing Development Scheme (IPDS)** since the **12th Five Year Plan** to aid the textile industry in meeting environmental standards.
- Modifications have been made to the scheme, which will now continue from **2021-22 to 2025-26** to complete ongoing projects.
- The primary goal of **IPDS** is to make the Indian textile industry globally competitive by adopting environmentally friendly processing standards and technology.

### **Scheme for Integrated Textile Parks**

- **The Scheme for Integrated Textile Parks (SITP)** initiated during the **10th Five Year Plan** aims to offer top-notch infrastructure facilities to the textile industry.
- Flexibility is integrated into the establishment of **Integrated Textile Parks (ITPs)** to accommodate local needs effectively.
- The scheme has a timeline extended till **2025-26** to ensure completion of ongoing projects.
- Its primary goal is to **enhance the competitiveness and productivity** of the textile sector through modern infrastructure provisions.

## Handloom and Handicrafts

- **India Handloom Brand:** Indian handlooms have worldwide recognition through **India Handloom Brand (IHB)** which guarantees high quality, authentic handloom items made with organic substance.
- It has partnered with **100 retail stores** to sell the exclusive items from their stores.

## Exports

- The Indian textile industry is globally significant, boasting a vast raw material base and robust manufacturing capabilities throughout its value chain.
- India holds the position of the largest exporter of **Textiles and Apparel (T&A) worldwide.**
- Textiles and clothing constitute a crucial sector within India's national economy.
- T&A, including handicrafts, accounted for a substantial **8.1 percent** of India's total exports in the **2022-23 fiscal year.**
- The industry's strength lies in both hand-woven and capital-intensive mill sectors, with the latter being the **world's second-largest.**
- Traditional segments such as handloom, handicrafts, and small-scale power-loom units serve as significant sources of employment, particularly in rural and semi-urban areas.

## Silk

- **Silk is a luxury item in the Indian sub-continent.**
- **Around 97% of raw mulberry silk** is produced in Karnataka, Andhra Pradesh, Tamil Nadu, West Bengal, and Jammu and Kashmir in India.
- Other commercially important types of silk include eri, tasar, and muga, which fall under **non-mulberry silks.**
- The Central Silk Board, under the Ministry of Textiles, oversees scientific, technological, and economic research to improve silk quality and productivity. They implement the Central Sector Scheme '**Silk Samagra**' for silk industry development.
- State sericulture departments are responsible for extension, marketing, and implementing developmental schemes.
- Due to research efforts, the country has achieved self-sufficiency in manufacturing silk machinery, including **Automatic Reeling Machines (ARM)** capable of producing International **4A grade silk.**
- Efforts are ongoing to attain **self-sufficiency** in producing international grade Bivoltine silk.

## Cotton

- **Cotton is a significant cash crop in India,** contributing around **22%** to global fiber production.
- Within India's textile industry, cotton constitutes approximately **60%** of raw material consumption.
- The cotton industry supports the livelihoods of roughly **6 million cotton farmers** and **40-50 million** individuals engaged in associated activities such as processing and trade.
- India possesses the largest area under cotton cultivation globally, with approximately **127 lakh hectares,** comprising around **38%** of the world's cotton cultivation area.
- The Indian government implements **Minimum Support Price (MSP)** for medium staple and long staple cotton to support the cotton industry.
- **The Cotton Corporation of India (CCI),** a Public Sector Undertaking under the Textile Ministry, is responsible for MSP operations when seed cotton prices reach the MSP level.

## Jute

- **India is the world's largest producer of jute,** averaging around **80 lakh** bales of raw jute annually.
- The Government of India supports jute growers through various measures, including MSP operations by the Jute Corporation of India and direct purchase of jute sacking valued at around **6,000 crore annually for packing foodgrains,** as mandated by the **Jute Packaging Material (Compulsory Use in Packing Commodities) Act, 1987.**
- These measures provide significant support to both jute farmers and workers in jute mills.

- A software platform called "**Jute-SMART**" (Jute Sacking Supply Management & Requisition Tool) has been implemented since **2016** to facilitate procurement of jute sacking.
- **Jute-ICARE** has been launched to increase the income of jute farmers by at least **50%** through measures such as promoting certified seeds, adopting better agronomic practices, and utilizing microbial retting of jute plants.
- Initiatives for Market & Export Promotions and modernization of machinery in Jute Units/Mills are being implemented under the National Jute Development Programme, an **Umbrella Scheme spanning from 2021-22 to 2025-26**.

## **New Initiatives**

### **PM Mega Integrated Textile Regions and Apparel Parks Scheme (PM MITRA)**

- The Government of India approved the establishment of **PM-MITRA** Parks to enhance industrial infrastructure in Greenfield/Brownfield sites.
- An outlay of **4,445 crore** has been allocated for the period **2021-22 to 2027-28**.
- The **PM MITRA** Scheme aims for nationwide implementation, focusing on comprehensive development of the textile sector.
- The Ministry of Textiles received **18 proposals from 13 states**.
- Seven sites have been finalized for PM MITRA parks: Tamil Nadu (Virudhnagar), Telangana (Warangal), Gujarat (Navsari), Karnataka (Kalaburagi), Madhya Pradesh (Dhar), Uttar Pradesh (Lucknow), and Maharashtra (Amravati).

### **Integrated Processing Development Scheme**

- The Ministry is implementing the **Integrated Processing Development Scheme (IPDS)** since the **12th Five Year Plan** to support the textile industry in meeting environmental standards.
- **IPDS** aims to facilitate the establishment and upgradation of Common Effluent Treatment Plants (**CETPs**) in existing processing clusters and new processing parks, particularly in Coastal Zones.
- The Ministry has decided to continue the scheme with modifications, extending it from **2021-22 to 2025-26**.
  - The extension aims to ensure the completion of ongoing projects under **IPDS**.

### **Scheme for Capacity Building in Textiles Sector (SAMARTH)**

- **SAMARTH** is a skilling scheme initiated by the Ministry of Textiles to support and enhance industry efforts in job creation within the organized textile and related sectors.
- It covers the **entire value chain of textiles, excluding Spinning and Weaving**.
- **SAMARTH** aims to address the skilled manpower requirements of the organized textile industry.
- Additionally, the scheme focuses on skilling and upgrading the skills of weavers and artisans involved in traditional textile sectors such as handlooms, handicrafts, sericulture, and jute.
- The scheme is valid until **March 2024**.

### **Promoting Fashion Technology**

- **National Institute of Fashion Technology (NIFT)** was established in **1986** and is the pioneering institute for fashion education in India.
- NIFT became a statutory institute in **2006** through an Act with the President of India as the '**Visitor**'.
- It has campuses spread across the country and established its newest campus in **Daman in August 2022**, the first in any **Union Territory (UT)**.
- NIFT offers various programs including 4-year undergraduate programs in seven disciplines, **2-year postgraduate programs** in three fields, and full-time & part-time doctoral programs.
- Additionally, it provides tailor-made diploma and certificate programs of short duration for working professionals.
- The Ministry of **MSME** initiated the establishment of a Centre of Excellence for Khadi (**CoEK**) with the goal of making Khadi a worldwide, classic, and value-driven brand.

- **CoEK** has been set up at NIFT following a '**hub and spoke**' model with Delhi as the hub and spokes at Bengaluru, Gandhinagar, Kolkata, and Shillong.
- The mission of **CoEK** is to design khadi clothing, home goods, and fashion accessories appealing to individuals of all ages.

## Steel

- The **Ministry of Steel oversees the planning and development of the iron and steel industry**, as well as the development of crucial inputs like iron ore, limestone, dolomite, manganese ore, chromites, ferro-alloys, and sponge iron.
- **Since 2013-14**, crude steel production has consistently increased, paralleled by an expansion in capacity.
- Currently, the crude steel production capacity stands at **161.30 million metric tons (MT)**.
- A robust domestic steel industry is vital for a developing economy, as steel serves as a critical component in various sectors including construction, infrastructure, automotive, capital goods, defense, and rail.
- Steel is recognized for its role in driving prompt and environmentally sustainable economic development, owing to its recyclable nature and quicker project completion times.
- The **steel sector plays a crucial role in generating employment and fostering economic growth**, with its impact extending beyond direct effects to encompass the entire supply chain and associated industries.

## National Steel Policy

- The **National Steel Policy (NSP) was launched in 2017** with the aim of ensuring that the Indian steel sector can meet the demands of modern India and foster sustainable growth.
- The vision of the **NSP is to create a technologically advanced and globally competitive steel industry** that contributes to economic growth.
- The policy outlines key objectives and initiatives for the steel sector.
- It aims to establish self-sufficiency in steel production by providing policy support and guidance to private manufacturers, MSME steel producers, and CPSEs.
- The NSP projects a crude steel capacity of **300 million tonnes (MT)**, production of **255 MT**, and a robust finished steel per capita consumption of **160 kg by 2030-31**, compared to the current consumption of **86.7 kg**.
- It also aims for **100%** indigenous fulfilment of demand for high-grade automotive steel, electrical steel, special steels, and alloys for strategic applications.
- Additionally, the policy aims to increase domestic availability of washed coking coal to reduce dependence from about **85% to around 65% by 2030-31**.

## Key Initiatives

- **Steel Scrap Recycling Policy**
  - The **Steel Scrap Recycling Policy (SSRP) was introduced in 2019**.
  - **SSRP** aims to facilitate the establishment of metal scrapping centers in India.
  - It focuses on scientifically processing and recycling ferrous scrap, including from **end-of-life vehicles (ELVs)**.
  - The **policy outlines a framework** for organized, safe, and environmentally friendly collection, dismantling, and shredding activities.
  - The objectives include reducing pollution and preventing health hazards associated with scrap processing.
  - **The policy specifies the responsibilities** of dismantling centers, scrap processing centers, aggregators, government, manufacturers, and owners.
  - Shredded scrap produced through recycling will be used as raw material for steel making.
- **Production Linked Incentive Scheme**
  - The **Production Linked Incentive (PLI) Scheme** for Specialty Steel has been operational **since 2021**.
  - The scheme offers incentives ranging from **4% to 12%** on incremental production.
  - **It targets five specific product categories:**
    - Coated/plated steel products

- High strength/wear-resistant steel
- Specialty rails
- Alloy steel products and steel wires
- Electrical steel
- These steel products find application in various sectors such as:
  - White goods
  - Automobile body and components
  - Pipes for oil and gas transportation
  - Boilers
  - Ballistic and armour sheets
  - High-speed railway lines
  - Turbine components
  - Distribution and power transformers.

#### ▪ Fertilisers

- The **Department of Fertilisers** falls under the Ministry of Chemicals and Fertilisers, focusing on ensuring the availability of fertilisers at affordable prices for agricultural production.
- Its **main functions include the development** of the fertilisers industry, planning, monitoring production, import, distribution of fertilisers, and managing financial assistance such as subsidies for indigenous and imported fertilisers.
- It oversees the **Fertilisers Industry Coordination Committee (FICC)** and **administers 9 Fertilizer Public Sector Undertakings (PSUs)**.
- **Agriculture**, contributing about **one-seventh of the GDP** and supporting nearly **two-thirds of the population**, is crucial for the economy with its backward and forward linkages.
- **Past five-year plans** prioritized self-sufficiency and self-reliance in foodgrain production, leading to increased agriculture productivity.
- Chemical fertilisers play a significant role in meeting domestic foodgrain requirements and generating exportable surpluses.
- **The Department of Fertilisers** has initiated measures to promote indigenous fertiliser production and ensure timely availability to farmers, aiming at sectoral growth.

#### ▪ New Urea Policy

- The **New Urea 5 initiative** was introduced to achieve several objectives:
  - **Maximize** indigenous urea production.
  - **Promote** energy efficiency in urea production processes.
  - **Rationalize** the subsidy burden on the government.
- It encompasses **36 existing gas-based urea units**, categorized into three groups based on preset energy norms.
- Target energy norms were assigned to **25 urea manufacturing units** for the period from **2018-19 onwards**.
- However, only **11 urea** manufacturing units managed to meet the target energy norms.

#### ▪ Neem Coating of Urea

- **Neem coating of urea (NCU)** mandated for all indigenous producers.
- **NCU** renders urea unfit for industrial use, preventing illegal diversion.
- Aim is to curb illegal diversion of subsidised urea to **non-agricultural purposes**.
- Government seeks to prevent subsidy leakages through this measure.

#### ▪ Chemicals and Petro-chemicals

- The **Department of Chemicals and Petro-chemicals** was initially under the Ministry of Industry until **1989** when it was moved to the Ministry of Petroleum and Chemicals.
- In **1991**, it was transferred again to the **Ministry of Chemicals and Fertilisers**.
- Its responsibilities include **planning, development, and regulation** of the chemicals, petro-chemicals, and pharmaceutical industry sector, excluding specific areas allocated to other departments.
- It oversees drugs and pharmaceuticals, insecticides (except administration under the **Insecticides Act, 1968**), molasses, industrial and potable alcohol from molasses, various organic and inorganic chemicals, petrochemicals, synthetic rubber, and assistance to related industries.
- Its jurisdiction covers insecticides, dye-stuffs, dye-intermediates, synthetic fibres, plastics, and other related areas.

- The chemical sector is largely deregulated except for three hazardous chemicals requiring licensing: hydrocyanic acid and its derivatives, phosgene and its derivatives, and isocyanate and di-isocyanates of hydrocarbons.
- Setting up new undertakings or substantial expansions in the chemical sector requires an **Industrial Entrepreneur Memorandum (IEM)** from the Department for Promotion of Industry and Internal Trade (**DPIIT**).
- Entrepreneurs base their decisions on technical and economic feasibility, demand and supply, and raw material costs.

## New Schemes

### Setting up of Plastic Parks

- The scheme **aims to establish need-based plastic parks**, creating an ecosystem with modern infrastructure and shared facilities through cluster development.
- It targets consolidating and leveraging the capabilities of the domestic downstream plastic processing industry.
- The Government of India offers grant funding covering up to **50%** of the project cost, capped at **40 crore per project**.
- The remaining project expenses are covered by the state government, state industrial development corporations, beneficiary industries, and loans from financial institutions.

### Petroleum Chemical and Petrochemical Investment Regions

- The **Petroleum Chemical and Petrochemical Investment Regions (PCPIRs)** were conceptualized in **2007**.
- **Aim:** To promote the petroleum, chemical, and petrochemical sectors in an integrated and environmentally friendly manner on a large scale.
- Implemented in a cluster approach.
- **Four PCPIRs under the policy:**
  - Andhra Pradesh (Vishakhapatnam)
  - Gujarat (Dahej)
  - Odisha (Paradeep)
  - Tamil Nadu (Cuddalore and Nagapattinam).
- **Objective:** To boost investment and development in these regions.
- Each region strategically selected to leverage local resources and infrastructure.
- Intended to foster industrial growth while minimizing environmental impact.
- Represents a significant initiative in the petroleum, chemical, and petrochemical sectors in India.

## Pharmaceutical Sector

- The **Indian pharmaceutical industry ranks as the world's third-largest by volume**.
- Total Annual Turnover for the pharmaceutical industry in **2022-2023 was 3,79,450 crore**.
- Over the past nine years, the sector has shown steady growth, with a Compound Annual Growth Rate (**CAGR**) of **6.4%** based on total pharma exports.
- Total imports of pharmaceuticals reached **56,391 crore for 2022-23**, covering bulk drugs, drug intermediates, drug formulations, and biologicals.

### National Pharmaceuticals Pricing Policy

- The Department introduced the National Pharmaceutical Pricing Policy-2012 (**NPPP-2012**) in **2012**.
- The objective of **NPPP-2012** was to establish a regulatory framework for drug pricing, ensuring availability of essential medicines at reasonable prices.
- The policy aimed to balance innovation and competition within the pharmaceutical industry, promoting economic growth and employment.
- To implement **NPPP-2012**, the **Drugs (Prices Control) Order, 2013**, was enacted in **2013**.
- The order regulated the prices of specific dosages and strengths listed under the National List of Essential Medicines-2011 (**NLEM-2011**).

- **In 2016**, the order was updated to include medicines listed in the revised National List of Essential Medicines-2015 (**NLEM-2015**).
- The revision of **NLEM-2015** was recommended by an Expert Core Committee formed by the Ministry of Health and Family Welfare, considering contemporary knowledge of therapeutic product usage.

### Pradhan Mantri Bhartiya Janaushadhi Pariyojana

- The **Jan Aushadhi Scheme** was initiated in **2008** to provide affordable generic medicines through Jan Aushadhi Stores in various districts.
- Objectives of the scheme include ensuring access to quality medicines, reducing the unit cost of treatment per person, and promoting awareness about generic medicines.
- The **first Jan Aushadhi Store opened in Amritsar, Punjab in 2008**.
- The original goal of the scheme was to establish Jan Aushadhi Stores in every district of the country.
- Recently, the scheme was renamed as "**Pradhan Mantri Bhartiya Janaushadhi Pariyojana**" (PMBJP) and "Pradhan Mantri Jan Aushadhi Kendra" (PMJAK) as "**Pradhan Mantri Bhartiya Janaushadhi Kendra**" (PMBJK).

### Mines and Minerals

- The **Ministry of Mines** oversees the **survey and exploration of all minerals except natural gas, petroleum, and atomic minerals**.
- It manages mining and metallurgy of non-ferrous metals like aluminum, copper, zinc, lead, gold, nickel, etc.
- Administration of the Mines and Minerals (**Regulation and Development**) **Act, 1957**, and related rules excluding coal, natural gas, and petroleum, and also the Offshore Areas Mineral (**Development and Regulation**) **Act, 2002**.
- The ministry is responsible for legislation regarding mines and minerals within India's territory, including maritime zones like territorial waters, continental shelf, and exclusive economic zone.
  - Regulation and development of minerals other than coal, lignite, and specified substances for the **Atomic Energy Act, 1962**.
  - Oversight of metals and minerals not allocated to other ministries/departments like aluminium, zinc, copper, gold, diamonds, lead, and nickel.
  - Planning, development, and control of industries under its purview.
  - Administration and management of Geological Survey of India and Indian Bureau of Mines.

### Mineral Legislation and Reforms

- The **Mines and Minerals (Development and Regulation) (MMDR) Act of 1957** is the central legislation governing the development and regulation of mines and minerals in India.
- **Section 13** of the MMDR Act grants the central government the authority to establish rules for the regulation of granting mineral concessions for major minerals.
- The **Mineral Concession Rules of 1960** were formulated in accordance with **Section 13 of the MMDR Act**.
- **Section 18** of the MMDR Act empowers the Central Government to formulate rules for the conservation and systematic development of minerals, as well as for environmental protection.
- The Mineral Conservation and Development Rules of **1988** were framed based on **Section 18 of the MMDR Act**.
- **Section 15** of the MMDR Act empowers state governments to create rules for regulating the grant of quarry leases, mining leases, or other mineral concessions for minor minerals.
- Consequently, all state governments and some union territories have formulated their own rules regarding minor mineral concessions in accordance with **Section 15 of the MMDR Act**.

### Mineral Laws (Amendment) Act, 2020

- **The MMDR Act, 1957** was amended by the **Mineral Laws (Amendment) Act, 2020**.
- The purpose was to ensure the continued supply of minerals, as many mineral blocks were set to expire in **March 2020**.



- The amendment aimed to avoid the need for new mining lease holders to obtain fresh clearances, which was causing significant delays in starting mining operations and mineral production.
- A provision was introduced to transfer all clearances and approvals to the new mining lease holders of expiring mineral blocks allocated through auction.

### **MMDR Amendment Act, 2021**

- The Ministry of Mines amended the Mines and Minerals (Development and Regulation) (**MMDR Act, 1957**) through the Mines and Minerals (Development and Regulation) **Amendment Act, 2021**.
- The amendments aim to boost mineral production, improve ease of doing business, and increase employment in the mineral sector.
- **Key provisions of the amended Act include:**
  - Removal of the distinction between captive and merchant mines, allowing all captive mines to sell up to **50%** of minerals produced after meeting certain requirements.
  - Resolution of pending cases under **Section 10A of the MMDR Act, 1957**.
  - Validity of statutory clearances of mining leases even after expiry or termination, to be vested in the next lessee.
  - **Transfer of mineral concessions without charges.**
  - Seamless transition from exploration to production.
  - Empowerment of the Central Government to give directions regarding the composition and utilization of funds by the District Mineral Foundation.
- The Ministry also amended the Second Schedule to the **MMDR Act, 1957**, specifying royalty rates for Glauconite, Potash, Emerald, **Platinum Group of Metals (PGM)**, andalusite, sillimanite, and molybdenum.
- These amendments aim to **facilitate auctions, reduce imports of these minerals, and create empowerment opportunities in the mining and manufacturing sectors.**

### **National Mineral Exploration Trust**

- The government notified the National Mineral Exploration Trust (**NMET**) Rules in **2015**.
- It established the National Mineral Exploration Trust (**NMET**) in accordance with **subsection (1) of Section 9C** of the **Mines and Minerals (Development and Regulation) Amendment Act, 1957**.
- The primary objective of **NMET** is to promote regional and detailed mineral exploration across the country.
- The goal is **to increase overall mineral production and achieve sustainable development** in the mineral sector.

### **The MMDR Amendment Act, 2023**

- **The Mines and Minerals (Development and Regulation) Amendment Act of 2021 amended the MMDR Act, 1957.**
- The **Amendment Act introduces several new measures**, including:
  - **Introduction of exploration** licences for deep-seated and critical minerals.
  - **Auctioning of blocks** explored by exploration license holders for mining lease within a specified timeline.
- Deep-seated minerals like gold, silver, copper, zinc, lead, nickel, cobalt, platinum group minerals, diamonds, etc., are challenging and costly to explore and mine compared to surface or bulk minerals.
- **Six minerals**, namely beryl and other beryllium-bearing minerals, lithium-bearing minerals, niobium-bearing minerals, titanium-bearing minerals and ores, tantalum-bearing minerals, and zirconium-bearing minerals and ores, have been removed from the list of two atomic minerals specified in **Part-B of the First Schedule to the Act**.
- The central government is empowered to exclusively auction mining leases and composite licences for certain critical minerals listed in the **new Part-D of the First Schedule to the Act**.

### **The Offshore Areas Mineral Act, 2023**

- The **Offshore Areas Mineral (Development and Regulation) Amendment Act, 2023** introduces new measures.
- Production leases are now granted only through auction by competitive bidding.
- A declaratory provision is added under **Section 13C**, stating that all applications received before the commencement of the amendment act are ineligible due to the adoption of auction as the sole method for grant selection.
- **There's a limit set on the acquisition of area:** no person can acquire more than **45 minutes latitude by 45 minutes longitude** concerning any mineral or prescribed group of associated minerals under one or more operating rights.
- To facilitate ease of doing business, provisions are made for easy transfer of composite licenses or production leases.
- The scope of power for premature termination has been expanded to include reasons like '**public interest**', '**strategic interest of the country**', or '**any other reason**'.

### Pradhan Mantri Khanij Kshetra Kalyan Yojana

- The government introduced Pradhan Mantri Khanij Kshetra Kalyan Yojana (**PMKKKY**) aimed at improving conditions in **mining areas**.
- **PMKKKY** is to be executed by district mineral foundations in respective districts.
- Objectives include **creating a favorable mining environment** and **improving conditions** for affected individuals.
- A national portal for **District Mineral Foundation (DMF)** is under development to monitor **PMKKKY** project implementations.
- Monitoring of **PMKKKY will fall under "DISHA,"** the District Development Coordination and Monitoring Committee of the Ministry of Rural Development.
- The aim is to enhance synergy and convergence for greater project impact.

### National Mineral Exploration Policy

- The Government introduced the **National Mineral Exploration Policy, 2016 (NMEP)**.
- **NMEP** outlines strategies and action plans for comprehensive exploration of non-fuel and non-coal mineral resources.
- The primary goal of NMEP is to accelerate exploration activities in India.
- The policy **emphasizes increased involvement of the private sector** in mineral exploration.
- The government aims to boost exploration through collaborative efforts with private entities.

### Digitisation of Land Use

- **GIS and Remote Sensing operations by IBM began in 2018**, focusing on digitising leasehold maps.
- The process involves plotting **RP (Revenue Parcel) and PL (Plot)** areas from available documents onto the **GIS platform**.
- Key activities in this process include generating data from RP/PL reports/documents, creating shape files by plotting RP/PL boundaries on the GIS platform, and attaching RP/PL attribute data to the shape files.

### Mineral Resources

- In **April 2020**, the classification of reserves/resources of various minerals based on the United Nations Framework Classification (**UNFC**) was conducted.
- This classification was followed by the preparation of the National Mineral Inventory.
- The UNFC utilizes a three-dimensional system with three axes: economic viability, feasibility assessment, and geological assessment.
- India is a producer of over **90 minerals**, with some prominent ones listed.

### Bauxite

- Total bauxite resources in the country per UNFC: **4,958 million tonnes**.
- Breakdown of resources: 646 million tonnes reserves, **4,312 million tonnes** remaining

resources.

- **79%** of the resources are of **metallurgical grade**.
- Odisha holds the largest share of the country's bauxite resources at **41%**.
- Chhattisgarh follows with **20%**, Andhra Pradesh with **12%**, Gujarat with **8%**, Jharkhand with **6%**, Maharashtra with **5%**, and Madhya Pradesh with **4%**.
- Major concentrations of bauxite resources are found along the east coast of **Odisha and Andhra Pradesh**.

### Chromite

- According to the **UNFC system**, the total chromite resources in the country are estimated to be **332 million tonnes**.
- This comprises **79 million tonnes** categorized as reserves, accounting for **24 percent**, and **253 million tonnes** categorized as remaining resources, making up **76 percent**.
- Approximately **96 percent** of these resources are located in Odisha, primarily in the Sukinda valley within the **Jajpur and Keonjhar districts**.

### Copper

- **Total** copper ore resources in the country: **1661 million tonnes**
- **Total copper metal**: 12.20 million tonnes
- **Reserve category**: 164 million tonnes (10% of total) with 2.16 million tonnes of copper metal
- **Remaining Resources**: 1497 million tonnes (90% of total) with 10.04 million tonnes of copper metal
- **Rajasthan**: 868 million tonnes ore (52% of total) with 4.64 million tonnes of copper metal
- **Madhya Pradesh**: 387 million tonnes ore (23% of total) with 3.67 million tonnes copper metal
- **Jharkhand**: 251 million tonnes ore (15% of total) with 2.78 million tonnes of copper metal
- Other states collectively account for **10%** of the total resources.

### Gold

- **According to the UNFC system**:
  - **Total** gold ore resources in the country: **544 million tonnes**.
  - **Reserves category**: 24 million tonnes.
  - **Remaining resources category**: 520 million tonnes.
  - **Total gold (primary) resources**: 607.26 tonnes.
  - **Reserves category**: 92.76 tonnes.
  - **Remaining resources category**: 514.50 tonnes.
- **Kerala** has placer-type gold ore:
  - Estimated at **26 million tonnes**.
  - Contains **5.86 tonnes of gold metal**.
- **Largest gold ore (primary) resources by state**:
  - Bihar: 43%.
  - Rajasthan: 24%.
  - Karnataka: 20%.
  - Andhra Pradesh and Uttar Pradesh: 3% each.
  - Jharkhand and West Bengal: 2% each.

### Iron Ore

- **Hematite and magnetite** are the primary iron ores in India.
- Hematite accounts for **78%** of ore deposits in the eastern sector, while magnetite accounts for **89%** in the southern sector, **particularly in Karnataka**.
- Hematite is preferred due to its higher grade.
- **Indian hematite deposits** are part of the precambrian iron ore series, occurring in various forms including massive, laminated, friable, and powdery.
- **Under the UNFC system**, hematite resources are estimated at **24,058 million tonnes**, with **26% categorized** as 'reserves' and **74% as 'remaining resources'**.
- Major hematite resources are found

in **Odisha** (39%), **Jharkhand** (20%), **Chhattisgarh** (19%), **Karnataka** (12%), and **Goa** (5%), with smaller deposits in other states.

- Magnetite, another principal iron ore, occurs as oxide, either in igneous or metamorphosed banded formations.
- Total magnetite resources are estimated at **11,228 million tonnes**, with only **2%** classified as 'reserves' and **98%** as 'remaining resources'.
- **20%** of magnetite resources are of metallurgical grade, while **80%** belong to unclassified, not-known beneficiated, foundry, coal washery, and other grades.
- 94% of India's magnetite resources are located in **Karnataka** (69%), **Andhra Pradesh** (13%), **Rajasthan** (7%), and **Tamil Nadu** (5%), with the remaining 6% scattered across several other states.

## Lead and Zinc

- **Total resources of lead and zinc** ores according to the UNFC system: **767 million tonnes**.
- **13%** of total resources classified as 'reserves', amounting to **103.28 million tonnes**.
- Remaining **87%** categorized as 'remaining resources', totaling **663.22 million tonnes**.
- Rajasthan possesses the largest share of resources: **685 million tonnes (89% of total)**.
- Other significant resource-rich states include Andhra Pradesh (**23 million tonnes, 3%**), Madhya Pradesh (**19 million tonnes, 2%**), Bihar (**11 million tonnes, 1.49%**), and Maharashtra (**9 million tonnes, 1.21%**).
- Resources are also identified in Gujarat, Meghalaya, Odisha, Sikkim, Tamil Nadu, Uttarakhand, and West Bengal.

## Manganese Ore

- **Total** manganese ore resources in the country: **504 million tonnes** (as per UNFC system)
- **Reserves:** 75 million tonnes (15% of total)
- **Remaining resources:** 429 million tonnes (85% of total)
- **State-wise distribution of total resources:**
  - **Odisha: 34%**
  - **Karnataka: 25%**
  - Madhya Pradesh: 12%
- **Remaining states (Rajasthan, Gujarat, Telangana, West Bengal) share approximately 1% of resources collectively.**

## Nickel

- Nickeliferous limonite is found in **Sukinda Valley, Jaipur district, Odisha, occurring as an oxide**.
- A process is under development for the utilization of nickeliferous **limonite**.
- Nickel occurs in sulphide form alongside copper mineralization in East Singhbhum district, Jharkhand.
- Nickel is also found associated with uranium deposits at Jaduguda, with a recovery process in development.
- Additional occurrences of nickel are reported in Karnataka, Kerala, and Rajasthan.
- Polymetallic sea nodules are another source of nickel.
- **According to UNFC**, the total estimated resources of nickel ore are **189 million tonnes**.
- **Approximately 93%** of these resources, or **175 million tonnes**, are located in Odisha.
- **The remaining 7%** of resources are distributed in Jharkhand (**9 million tonnes**) and Nagaland (**5 million tonnes**).
- Nominal resources of nickel ore are reported from Karnataka (**0.23 million tonnes**).

## Tungsten

- Total tungsten ore resources in the country as of **April 1, 2020**, according to the UNFC system, are estimated to be **89 million tonnes**.
- These resources contain approximately **144,650.07 tonnes of WO3 content**.
- All of these resources are categorised as 'remaining resources'.
- **Distribution of resources:**
- Karnataka holds **41%** of the total resources.
- Rajasthan holds **27%**.
- Andhra Pradesh holds **17%**.

## Diamond

- Diamond occurrences in India have been reported since prehistoric times.
- **India's diamond fields are currently categorized into four main regions:**
  - South Indian tract including parts of Anantapur, Cuddapah, Guntur, Krishna, and Kurnool districts, as well as Mahabubnagar in Telangana.
  - Central Indian tract in Madhya Pradesh, comprising the Panna belt and Chhatarpur districts.
  - Behradin-Kodavali area in Raipur district and Tokapal, Dugapal, etc. areas in Bastar district of Chhattisgarh.
  - Eastern Indian tract, primarily in Odisha, lying between the Mahanadi and Godavari valleys.
- **According to the UNFC system**, India's total diamond resources are estimated to be around **31.72 million carats**.
- Of this total, **0.85 million carats (3%)** are categorised as reserves, while the remaining **30.87 million carats** are under the remaining resources category.
- In terms of states, Madhya Pradesh holds about 90% of the diamond resources, followed by Andhra Pradesh with **6%**, and Chhattisgarh with **4%**.

## Fluorspar

- **Total fluorite resources in the country:** 21 million tonnes according to UNFC system.
- **Reserves:** 0.4 million tonnes.
- **Gujarat holds the largest share of total resources:** 14 million tonnes (68%).
- **Rajasthan** follows with 6 million tonnes (27%), **Chhattisgarh** with 0.55 million tonnes (3%), and **Maharashtra** with 0.49 million tonnes (2%).
- **Grade-wise classification:** Marketable grade resources constitute 82% of the total, low grade comprises 15%, and the remaining 3% are unclassified and low grades.

## Graphite

- **Graphite occurrences are found in various states in India**, with economically significant deposits located in Andhra Pradesh, Jharkhand, Karnataka, Kerala, Odisha, Rajasthan, and Tamil Nadu.
- **According to the UNFC system**, total graphite resources in India are estimated at about **212 million tonnes**.
- These resources consist of **9 million tonnes (4%)** in the reserves category and **203 million tonnes (96%)** in the remaining resources category.
- Arunachal Pradesh holds the largest share of total graphite resources at 36%, followed by Jammu and **Kashmir (30%)**, Odisha and **Jharkhand (9% each)**, **Madhya Pradesh (6%)**, and **Tamil Nadu (5%)**.
- In terms of reserves, Tamil Nadu holds the highest share at about 36%, followed by **Odisha (33%)** and **Jharkhand (30%)**.

## Ilmenite

- **Ilmenite and rutile**, along with other heavy minerals, are significant components of beach sand deposits.
- These deposits are found along the coastline from **Ratnagiri coast in Maharashtra** to the

Odisha coast in the east.

- The main areas of concentration for these minerals are Kerala, Tamil Nadu, Odisha, and Andhra Pradesh.
- **According to the UNEC system**, the total estimated resources of ilmenite are in the millions of tonnes, including leucoxene.
- The estimation includes indicated, inferred, and speculative categories of resources.

## Kyanite and Sillimanite

- **Total resources of kyanite in the country: 106 million tonnes** according to UNFC system.
- **Distribution of kyanite resources by state:**
  - Telangana: 46%
  - Andhra Pradesh: 30%
  - Karnataka: 12%
- **Total resources of sillimanite: 72 million tonnes.**
- **Distribution of sillimanite resources by state:**
  - Odisha: 25%
  - Tamil Nadu: 24%
  - Uttar Pradesh: 16%
  - Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Meghalaya, Rajasthan, and West Bengal combined: 4%

## Limestone

- Total limestone resources estimated at **227,589 million tonnes** according to UNFC system.
- **Karnataka** leads with **25%** of total resources.
- **Andhra Pradesh and Rajasthan** follow with **13%** each.
- **Gujarat and Meghalaya** contribute **10%** each.
- **Telangana holds 8%.**
- **Chhattisgarh** accounts for **6%** of the total limestone resources.

## Phosphate Minerals

- **Apatite** resources under the UNFC system: **21 million tonnes.**
- **Distribution of apatite resources:**
  - West Bengal: 50%
  - Jharkhand: 34%
  - Meghalaya: 6%
  - Remaining 5% in Andhra Pradesh, Gujarat, and Tamil Nadu.
- **Rock phosphate resources: 311 million tonnes.**
- **Distribution of rock phosphate resources:**
  - Jharkhand: 35%
  - Rajasthan: 30%
  - Madhya Pradesh: 19%
- **Meagre resources in Gujarat and Meghalaya.**

## Geological Survey of India

- The **Geological Survey of India (GSI)** is a prominent earth science organization established in **1851.**
- Initially focused on coal research, **GSI** has expanded its activities significantly over **163 years.**
- **GSI** provides crucial earth science information to the government, industry, and geoscientific sector.
- It holds one of the largest and most comprehensive earth science databases.
- **GSI's** activities include surface mapping, aerial and remote sensing surveys, offshore surveys, mineral and energy resource exploration, and more.
- Natural resource assessment and augmentation, public good geoscience, dissemination of geoscience knowledge, and capacity building are its prime areas.
- **GSI operates through six geographically distributed regions and five missions.**

- It collaborates with the British Geological Survey on projects like the **Landslide Early Warning System (LEWS)** and **earthquake studies**.
- **GSI** monitors glaciers in the Himalayan states to understand climate change's impact on the cryogenic environment and river systems.
- Additionally, it conducts studies in the Polar regions to decipher climate change patterns.
- GSI addresses issues like desertification, soil and groundwater contamination, bank erosion, urban flooding, and coastal land use change.
- GSI received the "**WCDM-DRR Awards**" in **2022** for its contributions to geotechnical, geo-environmental, and natural hazard studies.

## Indian Bureau of Mines

- The **Indian Bureau of Mines (IBM)** was established in **March 1948** under the Ministry of Mines.
- **IBM** has both statutory and developmental responsibilities, focusing on the conservation and systematic exploitation of mineral resources excluding petroleum and natural gas, atomic minerals, and minor minerals.
- It operates under various legal frameworks including the **Mines and Mineral (Development and Regulation) Act of 1937**, amended in **2015, 2020, and 2021**, and associated rules such as the Mineral Conservation and Development Rules of **2017**.
- Additionally, **IBM** operates under the **Environmental (Protection) Act of 1986** and its associated rules. **techno-economic research studies**
- The **bureau conducts scientific** and in various aspects of mining, including geological studies, ore beneficiation, and environmental impact assessments.
- The Ministry of Mines oversees three Public Sector Undertakings (**PSUs**) which are National Aluminium Company Limited (**NALCO**), Hindustan Copper Limited (**HCL**), and Mineral Exploration Corporation Limited (**MECL**).
- **NALCO and HCL** are engaged in mining and mineral processing, while **MECL focuses on mineral exploration**.

PDF Reference URL: <https://www.drishtiias.com/printpdf/chapter-11-industry>