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# Corporatization of Ordnance Factory Board

## Context:

Recently, the Union Cabinet approved a plan to corporatise the Ordnance Factory Board (OFB).

## About:

### Ordnance Factory Board (OFB):

- It is an umbrella body for the ordnance factories and related institutions, and is currently a subordinate office of the Ministry of Defence (MoD).
- The first Indian ordnance factory was set up in the year 1712 by the Dutch Company as a GunPowder Factory, West Bengal
- It is a conglomerate of 41 factories, 9 training Institutes, 3 regional marketing centres and 5 regional controllers of safety.

**Headquarters:** Kolkata

**Significance:** A major chunk of the weapon, ammunition and supplies for not just armed forces but also paramilitary and police forces comes from the OFB-run factories.

**Production includes:** Civilian and military-grade arms and ammunition, explosives, propellants and chemicals for missile systems, military vehicles, armoured vehicles, optical devices, parachutes, support equipment, troop clothing and general store items.

## **New Structure of Ordnance Factory Board (OFB)**

1. 41 factories across the country will be dissolved into seven new Defence Public Sector Undertakings (DPSU).
2. The newly created entities will be 100% owned by the government.
3. These entities will be responsible for different verticals of the products such as the Ammunition and Explosives group will be engaged in production of ammunition while a Vehicles group will engage in production of defence mobility and combat vehicles.
4. All OFB employees in the production units will be transferred to the new corporate entities on a deemed deputation initially for a period of two years without altering their service conditions as central government employees.
5. Pension liabilities of the retirees and existing employees will continue to be borne by the government.

## **Reasons for Corporatization:**

- A performance evaluation by the Comptroller and Auditor General (CAG) in its report for 2019 on the OFB highlights a few of the lacunae, which ails this organisation.
- Overheads (expenses not directly attributed to creating a product or service) constitute a staggering 33% of the overall allotted budget for the year.
- The major contributors being supervision costs and indirect labour costs
- Delayed Production: The Ordnance factories achieved production targets for only 49% of the items.
- More than half the inventory (52%) was store-in-hand, procured for manufacture but not used within the year by the factories.
- The Atmanirbhar Bharat initiative, also calls for the Corporatisation of OFB for: 'improving autonomy, accountability and efficiency in ordnance suppliers'.

## **Importance of new structure:**

- The restructure would also help in overcoming various shortcomings in the existing system of the OFB by eliminating inefficient supply chains and provide these companies incentive to become competitive and explore new opportunities in the market.
- It will allow these companies autonomy as well as help improve accountability and efficiency.
- The restructuring is aimed at transforming the ordnance factories into productive and profitable assets, deepen their specialisation in product range, enhance competitiveness and improve quality and cost-efficiency.

## **Apprehensions:**

- One of the main apprehensions of the employees is that corporatisation (ownership and management lies with the government) would eventually lead to privatisation (transfer of ownership and management rights to the private player).
- The new corporate entities would not be able to survive the unique market environment of defence products that has very unstable demand and supply dynamics.
- Restructuring will result in greater autonomy and lesser government control over the corporation but there is a fear of job loss.

## **Way Forward:**

- The corporatisation of OFB is likely to transform ordnance factories into a modernised, state of the art facility with flexible and better decision making in its functioning.
- There is a need to have a reflective road-map for the plan. This can help to ease the apprehensions regarding the corporatization.

# **Deep Ocean Mission**

## Context:

- The Cabinet Committee on Economic Affairs has approved the proposal of the Ministry of Earth Sciences (MoES) on the Deep Ocean Mission (DOM).
- The blueprint of the DOM to explore the deep recesses of the ocean was unveiled in 2018. Earlier, MoES had also rolled out the draft Blue Economy Policy.

## About:

### Deep Ocean Mission

- The cost of the Mission has been estimated at Rs. 4,077 crore over a five-year period and will be implemented in phases. MoES will be the nodal ministry implementing this multi-institutional ambitious mission.
- It will be a mission mode project to support the Blue Economy Initiatives of the Government of India.
- Blue Economy is the sustainable use of ocean resources for economic growth, improved livelihoods and jobs, and ocean ecosystem health.
- The technology and expertise needed in such missions is now available with only five countries – US, Russia, France, Japan and China.
- India will now be the sixth country to have it. Major Components of mission:

### Development of Technologies for Deep Sea Mining, and Manned Submersible:

- A manned submersible will be developed to carry three people to a depth of 6,000 metres in the ocean with a suite of scientific sensors and tools.
- An Integrated Mining System will be also developed for mining polymetallic nodules at those depths in the central Indian Ocean.
- Polymetallic nodules are rocks scattered on the seabed containing iron, manganese, nickel and cobalt.
- The exploration studies of minerals will pave the way for commercial exploitation in the near future, as and when commercial exploitation code is evolved by the International Seabed Authority, an United Nations (UN) organization.

### Development of Ocean Climate Change Advisory

#### Services:

- It entails developing a suite of observations and models to understand and provide future projections of important climate variables on seasonal to decadal time scales.
- Technological Innovations for Exploration and Conservation of Deep-sea Biodiversity:  
Bio-prospecting of deep sea flora and fauna including microbes and studies on sustainable utilization of deep sea bio-resources will be the main focus.

## Deep Ocean Survey and Exploration:

It will explore and identify potential sites of multi-metal Hydrothermal Sulphides mineralization along the Indian Ocean mid-oceanic ridges.

## Energy and Freshwater from the Ocean:

- Studies and detailed engineering design for offshore Ocean Thermal Energy Conversion (OTEC) powered desalination plants are envisaged in this proof of concept proposal.
- OTEC is a technology which uses ocean temperature differences from the surface to depths lower than 1,000 meters, to extract energy.

## Advanced Marine Station for Ocean Biology:

- It is aimed at the development of human capacity and enterprise in ocean biology and engineering.
- It will translate research into industrial application and product development through on-site business incubator facilities.

## Significance:

- Oceans, which cover 70% of the globe, remain a key part of our life. About 95% of the Deep Ocean remains unexplored.
- Three sides of India are surrounded by the oceans and around 30% of the country's population living in coastal areas, the ocean is a major economic factor supporting fisheries and aquaculture, tourism, livelihoods and blue trade.
- India has a unique maritime position. Its 7517 km long coastline is home to nine coastal states and 1382 islands.
- The Government of India's Vision of New India by 2030 announced in February 2019 highlighted the Blue Economy as one of the ten core dimensions of growth.

- Oceans are also a storehouse of food, energy, minerals, medicines, modulator of weather and climate and underpin life on Earth.
- Considering the importance of the oceans on sustainability, the UN has declared the decade, 2021-2030 as the Decade of Ocean Science for Sustainable Development.

# Children and Digital Dumpsites:

## Context:

The World Health Organization (WHO) in its recent report “Children and Digital Dumpsites” has underlined the risk that children working in informal processing are facing due to discarded electronic devices or e-waste

There are as many as 18 million children (as young as five years) and about 12.9 million women work at these e-waste dumpsites every year.

The e-waste from high-income countries is dumped in the middle- or low-income countries for processing every year.

## The E-waste:

- E-Waste is short for Electronic-Waste. It is the term used to describe old, end-of-life or discarded electronic appliances.
- It majorly includes electronic equipment, completely or in part discarded as waste by the consumer or bulk consumer as well as rejects from manufacturing, refurbishment and repair processes.
- It contains over 1,000 precious metals and other substances like gold, copper, lead, mercury, cadmium, chromium, polybrominated biphenyls and polycyclic aromatic hydrocarbons.

## Volume of E-waste

## Global Scenario:

- According to the Global E-waste Statistics Partnership, the volume of e-waste generated is surging rapidly across the globe.
- About 53.6 million tonnes of e-waste was generated in 2019.
- Only 17.4% of this e-waste was processed in formal recycling facilities. The rest of it was dumped in low- or middle-income countries for illegal processing by informal workers.
- This is because of the rise in the number of smartphones and computers.

## Indian Scenario:

- According to the Central Pollution Control Board (CPCB), India generated more than 10 lakh tonnes of e-waste in 2019-20, an increase from 7 lakh tonnes in 2017-18. Against this, the e-waste dismantling capacity has not been increased from 7.82 lakh tonnes since 2017-18.
- In 2018, the Ministry of Environment had told the tribunal that 95% of e-waste in India is recycled by the informal sector and scrap dealers unscientifically dispose of it by burning or dissolving it in acids.

## Impact of Working at Digital Dumpsites:

**On Children:** The children working at these 'digital dumpsites' are more prone to improper lung function, deoxyribonucleic acid damage and increased risk of chronic diseases like cancer and cardiovascular disease.

They are less likely to metabolize or eradicate pollutants absorbed.

**On Women:** Several women, including expectant mothers, also work there. Processing e-waste exposes them as well as their children to these toxins, which can lead to premature births and stillbirth.

**On Others:** The hazardous impact of working at such sites is also experienced by families and communities that reside in the vicinity of these e-waste dumpsites.

### Management of E-waste (International Convention)

#### Basel Convention on the Control of the Trans-boundary Movement of Hazardous Waste, 1992:

Originally the Basel Convention did not mention e-waste but later it addressed the issues of e-waste in 2006 (COP8).

The convention seeks to ensure environmentally sound management; prevention of illegal traffic to developing countries and; building capacity to better manage e-waste.

The **Nairobi Declaration** was adopted at COP9 of the Basel Convention. It aimed at creating innovative solutions for the environmentally sound management of electronic wastes.

## Management of E-waste in India:

### Producers:

- The government has implemented the E-waste (Management) Rules (2016) which enforces the Extended Producer Responsibility (EPR).
- Under EPR principle the producers have been made responsible to collect a certain percentage of E-waste generated from their goods once they have reached their “end-of-life”.

### State Governments:

They have been entrusted with the responsibility for maintaining industrial space for e-waste dismantling and recycling facilities.

They are also expected to establish measures for protecting the health and safety of workers engaged in the dismantling and recycling facilities for e-waste.

### Recycling of E-waste:

India's first e-waste clinic for segregating, processing and disposal of waste from household and commercial units has been set-up in Bhopal, Madhya Pradesh.

### Way Forward:

- Most of the e-waste is recycled in India in unorganized units, which engage a significant number of manpower. Recovery of metals from Printed Circuit Boards (PCBs) by primitive means is a most hazardous act.
- Proper education, awareness and most importantly alternative cost effective technology need to be provided so that better means can be provided to those who earn their livelihood from this.
- A holistic approach is needed to address the challenges faced by India in e-waste management. One approach could be for units in the unorganized sector to

concentrate on collection, dismantling, segregation, whereas, the metal extraction, recycling and disposal could be done by the organized sector.

- A suitable mechanism needs to be evolved to include small units in the unorganized sector and large units in the organized sector into a single value chain.

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