CROSS & CLIMB ROHTAK

Current Affairs : 20 December 2022

INS VAGIR

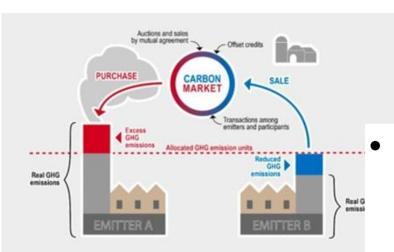
The fifth submarine of the Project – 75, Kalvari Class submarines, Yard 11879 was delivered to the Indian Navy on December 20, 2022.

About INS Vagir:

- **Vagir** was launched into water on November 12, 2020 and commenced sea trials on February 1, 2022.
- It is having "superior stealth features" like advanced acoustic absorption techniques.
- The sixth and last of the Scorpène-class submarines, **Vagsheer**, was launched into water in April 2022 and is expected to be delivered to the Navy by end 2023.
- Six Scorpene submarines are being built under **Project-75 by MDL under technology transfer from Naval Group of France** under a $3.75 billion deal signed in October 2005.
- The project is about four years behind schedule.
- The first submarine **INS Kalvari** was commissioned in December 2017, second submarine **INS Khanderi** in September 2019, third one **INS Karanj** in March 2021 and the fourth one **INS Vela** joined service in November 2021.

CARBON MARKETS

The Energy Conservation (Amendments) Bill, 2022, passed by the Rajya Sabha recently, has several significant features. It will foster a carbon market in India, through the creation of a National emissions trading system (National ETS).



What are carbon markets?

- **Article 6 of the Paris Agreement** provides for the use of international carbon markets by countries to fulfil their **nationally determined contributions (NDCs).**

- **Carbon markets are essentially a tool for putting a price on carbon emissions**— they establish trading systems where carbon credits or allowances can be bought and sold.
- A **carbon credit** is a kind of tradable permit that, per United Nations standards, equals one tonne of carbon dioxide removed, reduced, or sequestered from the atmosphere.
- Carbon allowances or caps, meanwhile, are determined by countries or governments according to their emission reduction targets.
- A United Nations Development Program released recently noted that interest in carbon markets is growing globally, i.e. 83% of NDCs submitted by countries mention their intent to make use of international market mechanisms to reduce greenhouse gas emissions.

What are the types of carbon markets?

- There are broadly **two types of carbon markets:**
  - **compliance markets and**
  - **voluntary markets**

Voluntary markets:

- **Voluntary markets** are those in which emitters— corporations, private individuals, and others— buy carbon credits to offset the emission of one tonne of CO_2 or equivalent greenhouse gases.
- Such carbon credits are created by activities which reduce CO_2 from the air, such as afforestation.
- In a voluntary market, a corporation looking to compensate for its unavoidable GHG emissions purchases carbon credits from an entity engaged in projects that reduce, remove, capture, or avoid emissions.
- For Instance, in the aviation sector, airlines may purchase carbon credits to offset the carbon footprints of the flights they operate. In voluntary markets, credits are verified by private firms as per popular standards. There are also traders and online registries where climate projects are listed and certified credits can be bought.

Compliance markets:

- **Compliance markets**— set up by policies at the national, regional, and/or international level—are officially regulated.
- Currently, compliance markets mostly operate under a principle called 'cap-and-trade", most popular in the European Union (EU).
- Under the EU's emissions trading system (ETS) launched in 2005, member countries set a cap or limit for emissions in different sectors, such as power, oil, manufacturing, agriculture, and waste management.
- This cap is determined as per the climate targets of countries and is lowered successively to reduce emissions.
- Entities in this sector are issued annual allowances or permits by governments equal to the emissions they can generate.
- If companies produce emissions beyond the capped amount, they have to purchase additional permit, either through official auctions or from companies which kept their emissions below the limit, leaving them with surplus allowances.
- This makes up the **'trade' part of cap-and-trade.**

SURETY BOND INSURANCE

Union Minister for Road Transport and Highways recently launched one of India's first-ever Surety Bond Insurance product.

About:

- **What it is?** Surety bond can be defined in its simplest form as a written agreement to guarantee compliance, payment, or performance of an act. Surety is a unique type of insurance because it involves a **three-party agreement**. The three parties in a surety agreement are:
- **Principal**: The party that purchases the bond and undertakes an obligation to perform an act as promised.

- **Surety**: The insurance company or surety company that guarantees the obligation will be performed. If the principal fails to perform the act as promised, the surety is contractually liable for losses sustained.
- **Obligee**: The party who requires, and often receives the benefit of the surety bond. For most surety bonds, the obligee is a local, state or federal government organization.

Advantages of the bond insurance

- It will act as a **security arrangement for infrastructure projects** and will insulate the contractor as well as the principal.
- The product will cater to the requirements of a diversified group of contractors, many of whom are operating in today's increasingly volatile environment.
- The **product gives the principal a contract of guarantee** that contractual terms and other business deals will be concluded in accordance with the mutually agreed terms. In case the contractor doesn't fulfil the contractual terms, the Principal can raise a claim on the surety bond and recover the losses they have incurred.
- Unlike a bank guarantee, the **Surety Bond Insurance does not require large collateral from the contractor** thus freeing up significant funds for the contractor, which they can utilize for the growth of the business.
- The product will also help in **reducing the contractors' debts** to a large extent thus addressing their financial worries.

NATIONAL TESTING HOUSE (NTH)

National Testing House will begin testing facilities for EVs and EV charging systems by next fiscal at its Mumbai and Kolkata facilities.

About:

- Currently, the International Centre for Automotive Technology and the Automatic Research Association of India (ARAI) are providing testing facilities for electric vehicles in India.

Key features of National Testing House

- It was originated in the year 1912, as “**Government Test House” at Alipore, Calcutta**, with the primary objective of assisting and guiding the indigenous manufacturers on the production of engineering goods with Quality Testing.
- Presently it is functioning as a subordinate office under, **Ministry of Consumers Affairs, Food & Public Distribution, and Department of Consumer Affairs**.
- It is **Registered in the Government e Market (GeM) as a service provider** in the category "Testing and Calibration Service" to meet the testing needs of all Government departments and PSUs.
- It imparts its services to the nation through seven of its regional branches located at Kolkata, Mumbai, Chennai, Ghaziabad, Jaipur, Guwahati and Varanasi.
- It is also expanding its services for water testing and fertiliser testing, among others, including rock phosphate.

ATL MARATHON

NITI Aayog recently opened applications for ‘ATL Marathon 2022-23’.

About:

- ATL Marathon is a flagship innovation challenge under **Atal Innovation Mission’s Atal Tinkering Labs program.**
- This is a national-level innovation challenge for young innovators across India who can solve community problems of their choice, and develop innovative solutions in the form of working prototypes or, minimum viable product (MVP).
- **The theme** for this edition of ATL Marathon is **“India’s G20 Presidency**”.

AIM has designed the problem statements based on G20’s working group inspiring recommendations on internationally relevant issues in respective areas of focus.

- This marathon will create a huge opportunity for students to innovate not just for the better India but for the world by resolving global problems in various sectors.

ATAL TINKERING LAB

- **Vision**: To cultivate one Million children in India as Neoteric Innovators ATAL Innovation Mission is establishing ATAL Tinkering Laboratories (ATLs) in schools across India.
- **Objective:** To foster curiosity, creativity, and imagination in young minds; and inculcate skills such as design mind-sets, computational thinking, adaptive learning, physical computing etc.
- In order to foster inventiveness among students, ATL can conduct different activities ranging from regional and national level competitions, exhibitions, workshops on problem solving, designing and fabrication of products, lecture series etc. at periodic intervals.

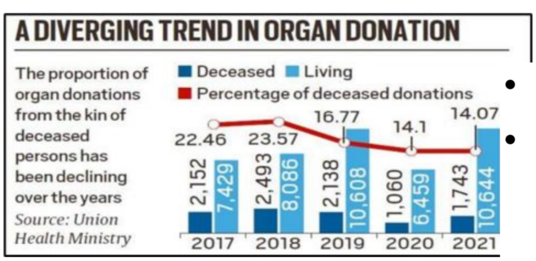
ORGAN DONATIONS RISE AFTER 2020 DIP, CLOSE TO PRE-PANDEMIC HIGH

In News:

- As per data shared in Parliament by the Union Health Ministry, after a dip in 2020 owing to the pandemic, organ donations picked up again in 2021 with 12,387 organs harvested from deceased as well as living donors.

News Summary

- After a fall during the first year of the Covid-19 pandemic, organ donation numbers bounced back in 2021.
- However, the number of deceased donations has remained lower than the number of donations from living persons.
  - Deceased donation - organs donated by the kin of those who suffered brain death or cardiac death.



Statistics

- Of the 12,387 organs — kidney, liver, heart, lungs, and pancreas among others — harvested in 2021, only 1,743 (a little more than 14%) were from deceased donors.

- The numbers harvested in 2021 were close to the highest in the last five years (12,746, in 2019).
- The numbers are skewed in favour of living donations — organs like kidney and liver donated by living family members.
- There is also a geographical skew in deceased donations.
  - All but two deceased organ donations in 2021 were in 15 states.
  - The top five — Telangana, Tamil Nadu, Maharashtra, Gujarat, and Karnataka — accounting for more than 85% of the total.
  - Two organs were harvested from a deceased donor in Goa.
  - One reason for the geographical skew could be that most organ transplant and harvesting centres are concentrated in these geographies.
- India has an organ donation rate of about 0.52 per million population.
  - In comparison, the organ donation rate in Spain, the highest in the world, is 49.6 per million population.

Need to increase deceased donations

- **Increased demand**
  - There is a gap in the number of organs needed and the number of transplants that happen in the country.
    - In absolute numbers, India conducts the third highest number of transplants in the world.
    - Of the estimated 1.5-2 lakh persons who need a kidney transplant every year, only around 8,000 get one. And of the 10,000 who need a heart transplant, only 200 get it.
  - Demand is on the rise because of the increasing prevalence of lifestyle diseases.
  - Besides, organs like heart and lungs can be retrieved only from deceased donors.
- **Precious resources are wasted**
  - Without deceased donations, a precious resource is wasted.
  - Nearly 1.5 lakh persons die in road traffic accidents every year in India, many of whom can ideally donate organs.

Regulatory framework in India

- **Legislation**
  - In 1994, The Transplantation of Human Organs Act (THOA) was promulgated by the government of India.
  - The Transplantation of Human Organs Rules followed in 1995 and were last amended in 2014, increasing the scope of donation and including tissues for transplantation.
  - The act made commercialization of organs a punishable offence and legalized the concept of brain death in India allowing deceased donation by obtaining organs from brain stem dead person.
- **Institution**
  - **National Organ and Tissue Transplant Organization** (NOTTO) is a national level organization set up under Ministry of Health and Family Welfare.
  - Besides laying down policy guidelines and protocols for various functions, it coordinates all the activities associated with organ donation at national level.

Reasons for low organ donation rate in India

- **Existing system**
  - In India a person has to register to be an organ donor and the family has to consent to it after death.
    - Even with a donor card, the family's consent is sought for organ donation after the death of the individual.
    - If the family refuses, the organs are not harvested.
  - On the other hand, Spain has an opt-out system where a person is presumed to be a donor unless otherwise specified.
- **Availability of transplant coordinator**
  - Having a medically qualified transplant coordinator helps in organ donation.
    - A transplant coordinator is the patient's link to the transplant hospital.
    - They also serve as information resources for patients and families after the transplant.
  - India has smaller number of such coordinators.
- **Transport infrastructure**

- Good transport networks between cities and states can help boost organ donation.
- There is need to improve coordination among the Road, Railway, and Aviation Ministries to facilitate the creation of green corridors for faster transportation of organs.

- **Less awareness**
  - There is need for more awareness about organ transplant so that people register as donors.

EU ADOPTS GLOBAL MINIMUM 15% TAX ON BIG BUSINESS

In News:

- Members of the European Union agreed in principle to implement a minimum tax of 15% on big businesses.
- Last year, a global deal to ensure big companies pay a minimum tax rate of 15% and make it harder for them to avoid taxation has been agreed by 136 countries.

Global tax agreement framed by the OECD

Background:

- Companies like Apple, Facebook, Google and other tech giants profit enormously from the domestic markets while they make minimal contributions to public coffers.
  - Many countries wanted new taxes on these companies.
- To address this issue, almost 140 countries started negotiation under the auspices of the OECD (Organisation for Economic Co-operation and Development).
  - They were trying to find an agreement on a global tax overhaul to address how multinationals are taxed in the nations where they have users or consumers.
- The OECD had proposed two ways:
  - Countries would be allowed to have some rights to tax profits made on the basis of sales in their jurisdictions.
  - It also talked about a global minimum corporate tax rate to stop countries lowering corporate tax rates below that level.

Global Tax deal agreed by the OECD

- The deal has two main elements –
  - **Pillar One**, which calls for the redistribution of profits generated by the largest companies to the domicile markets where they actually make their sales instead of simply where they are headquartered.
    - A quarter of any profits they make above the 10% threshold will be reallocated to the countries where they were earned and taxed there.
  - **Pillar Two**, which establishes a global minimum effective tax rate of 15 percent determined on a country-by-country basis.
    - Governments will be equipped to impose additional taxes in case companies are found to be paying taxes that are considered too low.
    - The 15% floor under the corporate tax will come in from 2023, provided all countries move such legislation.
- **Firms covered by this deal**
  - This deal will cover firms with global sales above 20 billion Euros ($23 billion) and profit margins above 10%.
  - It is expected to hit digital giants like Amazon, Google and Facebook.

Impact of this deal

- Analysts believe that this deal will end the global race to the bottom and help governments collect the revenues required for social spending.
  - The OECD estimates the minimum tax will generate $150 billion in additional global tax revenues annually.
- Many believe that the plan will also help counter rising global inequality by making it tougher for large businesses to pay low taxes by availing the services of tax havens.
  - As per one estimate, taxing rights on more than $125 billion of profit will be additionally shifted to the countries where they are earned.
- On the other hand, critics believe that this deal is the threat of tax competition that keeps a check on governments which would otherwise tax their citizens heavily to fund profligate spending programs.

- They argue that without tax competition between governments, the world would be taxed a lot more than it is today, thus adversely affecting global economic growth.

News Summary

- EU members have agreed to implement a minimum tax rate of 15% on big businesses in accordance with Pillar 2 of the global tax agreement framed by the OECD last year.

Need for a global minimum tax

- In the past, countries would frequently compete with one another to offer an attractive deal to multinationals companies.
  - Due to this competition, global corporate tax rates have fallen from over 40% in the 1980s to under 25% in 2020.
- It made sense when those companies might come in, set up a factory and create jobs.
- However, the new digital era giants started simply moving profits around, from the regions where they do business to those where they will pay the lowest taxes.
- Hence, the OECD's tax plan tries to put an end to this "race to the bottom" by fixing the global minimum tax rate.
