

IQRA IAS



Weekly Updates
(12th Sept-19th Sept)

❖ Project 17A : Taragiri

(Source: Indian Express)

Why in News: 'Taragiri', the third stealth frigate of project 17A was launched by Mazagon Dock Shipbuilders Ltd. (MDL) in Mumbai. The stealth vessel is expected to be commissioned into the Indian Navy in February 2023.

Taragiri

- It is the third stealth frigate of Project 17A.
- It is built by Mazagon Dock Shipbuilders Ltd (MDL). It is designed by the Indian Navy's in-house design organization: Bureau of Naval Design.

Features

- The ship has state-of-the-art weapons, sensors, an advanced action information system, an integrated platform management system, world-class modular living spaces, a sophisticated power distribution system and a host of other advanced features.
- The ship's air defence capability is designed to counter the threat of enemy aircraft and anti-ship cruise missiles will revolve around the vertical launch and long-range surface-to-air missile system.
- Two 30 mm rapid-fire guns will provide the ship with close-in-defence capability while an SRGM (Super Rapid Gun Mount) gun will enable her to provide effective naval gunfire support.
- Indigenously developed triple tube lightweight torpedo launchers and rocket launchers will add punch to the ship's anti-submarine capability.

Project 17A

- **Project 17 Alpha frigates (P-17A)** were launched by the Indian Navy in 2019.
- **The project is aimed** to construct a series of stealth guided-missile frigates. These guided-missile frigates have been constructed with a specific stealth design, which has radar-absorbent coatings and is low-observable which can make its approach undetectable for the enemies.
- **The first stealth ship launched under Project 17A was the Nilgiri**, which was launched in 2019 and is expected to be commissioned in the Indian Navy by the end of this year.
- **Udaygiri, the second ship, was launched in May 2022**, and will likely be commissioned in 2024.

❖ Ni-kshay Mitras initiative

(Source: PIB)

Why in News: Recently, the President has launched the 'Pradhan Mantri TB Mukh Bharat Abhiyan' and announced the Nikshay 2.0 portal to eliminate TB by 2025.

- The initiative ensures three-pronged support includes:
 - Nutritional
 - Additional diagnostic and
 - Vocational support
- The program was brought in to fill the critical “community” elements into India’s fight towards the Pradhan Mantri TB Mukh Bharat Abhiyaan aimed at eliminating TB by 2025.
- **The NIKSHA 2.0 portal** provides additional patient support to TB patients to take advantage of Corporate Social Responsibility (CSR) opportunities to improve treatment outcomes, enhance community participation and fulfill India’s commitment to TB eradication.
- **Ni-kshay Mitra (Donor)** for this program includes co-operative societies, corporates, elected representatives, individuals, institutions, non-governmental organisations, political parties and partners who can support by adopting the health facilities (for individual donor), blocks/urban wards/districts/States for accelerating the response against TB to complement the government efforts.
- The support provided to the patient under this initiative is in addition to the free diagnostics, free drugs and Ni-kshay Poshan Yojana provided by the National TB Elimination Program (NTEP) to all the TB patients notified from both the public and the private sector.

TB Prevalence in India

- India has the world’s highest tuberculosis (TB) burden, with an estimated 26 lakh people contracting the disease and approximately 4 lakh people dying from it every year.
- The economic burden of TB in terms of the loss of lives, income and workdays is also substantial.
- TB usually affects the most economically productive age group of society resulting in a significant loss of working days thereby pushing the TB patients further into the vortex of poverty.

❖ Operation Gear Box

(Source: PIB)

Why in News: Recently, the Directorate of Revenue Intelligence (DRI) has launched Operation ‘Gear Box’ to stop the drug syndicate in smuggling contraband drugs.

About

- The examination and seizure proceedings by DRI was done under the provisions of the Narcotic Drugs and Psychotropic Substances Act, 1985.
- The drug packets were shipped concealed inside the metal scrap so that they would go unnoticed by the authorities.

- The gears from the old and used gearboxes were removed after opening them, and the plastic packets containing the narcotic substances were placed in the created cavity, and the gearboxes were then refitted to avoid detection.

India and Drug Abuse

- **According to the World Drug Report 2022**, India is one of the world's single largest opiate markets in terms of users and would likely be vulnerable to increased supply.
- **According to the National Survey on Extent and Pattern of Substance Use in India in 2019, about 2.1% of the country's population** (2.26 crore individuals) uses opioids which include opium (or its variants like poppy husk known as doda/phukki), heroin, and pharmaceutical opioids.
- The money from the drug trade is used to finance terrorism, human trafficking, illegal businesses etc.

Major Source of Drug Trafficking

- India lies in the middle of two major illicit opium production regions in the world, the Golden Crescent in the west and the Golden Triangle in the east which makes it a viable hub of the illicit drug trade.
- **Golden Triangle:** It includes the regions of Myanmar, Laos, and Thailand and is Southeast Asia's main opium-producing region and one of the oldest narcotics supply routes to Europe and North America.
- **Golden Crescent:** It includes Afghanistan, Iran, and Pakistan and is a principal global site for opium production and distribution.

Initiatives to Tackle Drug Trafficking & Abuse

India Initiatives

- Narcotic Drugs and Psychotropic Substances Act, 1985 (NDPS Act)
- **Nasha Mukh Bharat:** Annual Action Plan (2020-21) for Most Affected Districts

Global Initiatives

- On 26 June every year, the World Customs Organization (WCO) joins the international community to mark the United Nations' International Day against Drug Abuse and Illicit Trafficking.
- **Project AMEAP of INTERPOL:** Project AMEAP assists national authorities to identify security threats and tackle organized crime groups engaged in illicit drug trafficking in Africa, the Middle East, and Asia and the Pacific.
- **Conventions:** United Nations (UN) Convention on Narcotic Drugs (1961), UN Convention on Psychotropic Substances (1971) & UN Convention against Transnational Organized Crime (UNTOC) 2000.

❖ Financial Intermediary Fund (FIF)

(Source: Hindu Business)

Why in News: A new fund named Financial Intermediary Fund (FIF) has been established for pandemic prevention, preparedness and response (PPR)

Financial Intermediary Fund (FIF)

- **Purpose:** To provide additional, long-term financing to strengthen pandemic prevention, preparedness and response(PPR) capabilities in low- and middle-income countries and address critical gaps at the national, regional and global levels.
- **Trustee and Host:** World Bank will serve as a trustee and host the secretariat of the fund with technical support from the World Health Organization (WHO)
- **Funding:** The fund was developed with broad support from members of the G20 and beyond. For instance, over \$1.4 billion in financial commitments have already been announced by countries like Australia, Canada, China, the European Commission, the United States, and India among others.
- **Areas:** Finances from the fund will go towards strengthening and sustaining PPR capacity in areas such as zoonotic disease surveillance, laboratories, emergency communication, coordination and management, critical health workforce capacities and community engagement

❖ World Dairy Summit

(Source: The Hindu)

Why in News: Recently, the Prime Minister inaugurated the International Dairy Federation World Dairy Summit (IDF WDS) 2022 at India Expo Centre and Mart in Greater Noida. The last such dairy summit was held in India about half a century ago in 1974.

Major Highlights of the Summit

- **Theme:** Dairy for Nutrition and Livelihood.
- **Animal Base scheme:** With the help of modern technology, biometric identification of animals is being done under the scheme 'Animal Base'.
- **Database of dairy animals:** India is building the largest database of dairy animals, and every animal associated with the dairy sector is being tagged. More than 1,000 startups set up in the agriculture and dairy sector in the last 5-6 years.

Data on Indian dairy industry

- Accounts for about 23 percent of global milk. It produces around 210 million tonnes annually, empowering more than 8 crore dairy farmers.
- Total value of dairy production in the country is about Rs 8.5 lakh crore which is more than the combined value of paddy and wheat production.

Initiatives Related to the Dairy sector

- **"Dairy Sahakar" scheme:** Union Minister of Home Affairs and Corporation launched the "Dairy Sahakar" scheme at Anand, Gujarat, during the function organised by Amul for the celebration of the 75th Foundation Year of Amul. The Dairy Sahakar with a total investment of Rs 5000 crore will be implemented by NCDC under the Ministry of Cooperation to realize the vision, "from cooperation to prosperity".
- **Rashtriya Gokul Mission (RGM):** It has been launched in December 2014 with an outlay of Rs 2025 crore for the development and conservation of indigenous breeds through selective breeding in the breeding tract and genetic up-gradation of the nondescript bovine population.
- **National Animal Disease Control Program (NADCP):** It is a flagship scheme launched in September 2019 for control of Foot & Mouth Disease and Brucellosis by vaccinating 100% cattle, buffalo, sheep, goat and pig population for FMD and 100% bovine female calves of 4-8 months of age for brucellosis in five years (2019-20 to 2023-24).
- **Animal Husbandry Infrastructure Development (AHIDF):** It has been approved for incentivizing investments by individual entrepreneurs, private companies, MSME, Farmers Producers Organizations (FPOs) and Section 8 companies to establish
- **Dairy Entrepreneurship Development Scheme (DEDS):** The department of Animal Husbandry, dairying and fisheries is implementing DEDS for generating self-employment opportunities in the dairy sector, covering activities such as enhancement of milk production, procurement, preservation, transportation, processing and marketing of milk by providing back ended capital subsidy for bankable projects.
- **National Digital Livestock Mission (NDLM):** It is a digital platform being developed jointly by the Department of Animal Husbandry and Dairying (DAHD) and NDDB on the foundation of the existing Information Network for Animal Productivity and Health (INAPH).
- **Livestock Health & Disease Control (LH&DC) Scheme:** It aims to reduce risk to animal health by prophylactic vaccination against diseases of animals, capacity building of Veterinary services, disease surveillance and strengthening veterinary infrastructure.

❖ CAR-T Cell Therapy

Why in News: Recently, the researchers have said that India's first indigenously developed Chimeric Antigen Receptor (CAR)-T Cell T therapy for specific types of cancer patients has shown promising results and could be the safest therapy in this category so far.

CAR-T cell Therapy

- CAR-T cells are a patient's own immune cells that are genetically engineered in the laboratory to fight cancer. **CAR-T cell is a prospective therapy** that has ushered in a new era of curing refractory and stubborn cancers.

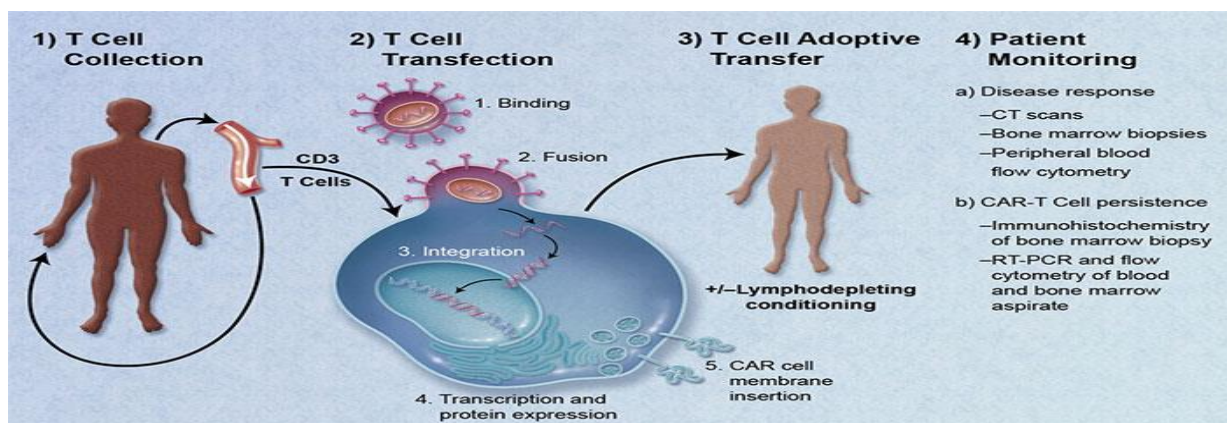
- CAR T cell therapy is used as third or second-line treatment for patients of specific types of cancers of blood and lymph nodes. In India, those willing to undergo this treatment have to travel to other countries, mostly the US.
- T-cell receptor is widely used in developed nations for immunotherapy during cancer treatment. However, the technology was not available in India yet.
- The therapy targets leukemia and lymphoma.
- Leukemia is cancer of blood-forming tissues, including bone marrow.
- It uses lentiviral technology. In gene therapy, this is a method of inserting, modifying, or deleting genes in organisms using lentivirus, a family of viruses responsible for diseases such as AIDS (acquired immunodeficiency syndrome).

As part of the treatment, a specific type of white blood cells called T cells are changed in the lab so they can find and destroy cancer cells. It is also sometimes referred to as a type of cell-based gene therapy because it involves altering genes inside T cells to help them attack cancerous cells.

In What types of cancer can it be used: The therapy is mostly effective in blood cancer and lymphoma (cancer beginning in the cells of the lymph system). In India, about 40,000-50,000 patients of these cancers are diagnosed every year.

Significance

- **HCAR19 therapy :** The participants received autologous HCAR19 therapy (humanised CAR 19 therapy developed by IIT Bombay and it was observed that there were no dose-limiting toxicities and only low grade Cytokine Release Syndrome (CRS) was seen in 40 percent of participants.
- **No neurotoxicity syndrome:** None of the participants had immune effector cell-associated neurotoxicity syndrome.
- **Safer version:** Overall, the novel humanised HCAR19 tested in phase one clinical trials for adult lymphoma was found to be safe and has shown promising early signs of activity.
- **No deaths:** Post-CAR-T cell therapy none of the participants required ICU admission and there were no CAR-T treatment related deaths.



❖ Miyawaki Process

(Indian Express)

Why in News: The Japanese “Miyawaki method” used in Kuharianwali village of Punjab in one acre of unused land has grown into a “forest” in less than a year. The village has become a trendsetter in expanding forest cover.

Miyawaki Technique

- Miyawaki is a technique pioneered by Japanese botanist Akira Miyawaki, that helps build dense, native forests in a short time.
- In the Miyawaki technique, various native species of plants are planted close to each other so that the greens receive sunlight only from the top and grow upwards rather than sideways. As a result, the plantation becomes approximately 30 times denser, grows 10 times faster and becomes maintenance-free after a span of 3 years.

Process

- The native trees of the region are identified and divided into four layers: shrub, sub-tree, tree, and canopy.
- The quality of soil is analyzed and biomass which would help enhance the perforation capacity, water retention capacity, and nutrients in it, is mixed with it.
- A mound is built with the soil and the seeds are planted at a very high density: three to five sapling per square meter. The ground is covered with a thick layer of mulch.

Benefits of the Miyawaki method

- They help lower temperatures in concrete heat islands, reduce air and noise pollution, attract local birds and insects, and create carbon sinks.
- The Miyawaki afforestation method requires quite a small space, at least 20 square feet.
- It has revolutionized the concept of urban afforestation by turning backyards into mini-forests.

Miyawaki projects have been buoyed by India’s promise, under the Paris Agreement, to improve its green cover from 25 to 33 percent. A rough count reveals that there are over a hundred Miyawaki forests in India, but no one has kept track.

WHAT IS THE MIYAWAKI METHOD?

- Named after Japanese botanist Akira Miyawaki who invented it
- It involves planting of several species very close together in a small pit
- Plants draw nutrients from each other and become healthy
- A dense forest, which grows naturally in 300 years is created in 30-35 years
- Trees grow 10 times faster, and absorb 30 times more carbon dioxide
- Density is 30 times that of normal tree plantations



MIYAWAKI FORESTS IN VADODARA

Private farm, Sun Pharma Road Area 12,000 square feet Number of trees planted 3,500	VMC's Rajivnagar STP, Harni Area 16,000 square feet Number of trees planted 4,000
Bhoj village, Padra Forest department's demonstration plot Area 30 x 10 metre Number of trees planted 831	

❖ Pradhan Mantri Matsya Sampada Yojana (PMMSY)

(Source: PIB)

Why in News: Recently, the 2nd anniversary of PMMSY has been celebrated.

It is a flagship scheme for focused and sustainable development of the fisheries sector in the country with an estimated investment of 20,050 crore for its implementation during 2020-21 to 2024-25 as part of Aatmanirbhar Bharat package.

Ministry: Fisheries, Animal Husbandry and Dairying

Aims:

- To bring about a blue revolution through sustainable and responsible development of the fisheries sector in India.
- To double the incomes of fishers and fish farmers, reducing post-harvest losses from 20-25% to about 10% and the generation of gainful employment opportunities in the sector.

Status of Fisheries Sector

- The fisheries sector has been recognized as a powerful income and employment generator as it stimulates growth of a number of subsidiary industries and is a source of cheap and nutritious food, at the same time it is an instrument of livelihood for a large section of the economically backward population of the country.
- Fishery sector occupies an important place in the socio-economic development of the country.
- India is the 3rd largest fish producing and 2nd largest aquaculture nation in the world after China.
- The Blue Revolution in India demonstrated the importance of the Fisheries and Aquaculture sector.
- The sector is considered as a sunrise sector and is poised to play a significant role in the Indian economy in near future.

❖ SATAT Initiatives

Why in News: The Indian Biogas Association has recommended setting up testing labs in all States in the next two years to achieve the Sustainable Alternative towards Affordable Transportation (SATAT) target, which aims to establish 5,000 compressed biogas (CBG) plants by 2025.

'SATAT'

'SATAT' (Sustainable Alternative Towards Affordable Transportation) scheme on Compressed Biogas (CBG) was launched in 2018. Under the SATAT scheme, entrepreneurs shall set up CBG

plants, produce & supply CBG to Oil Marketing Companies (OMCs) for sale as automotive & industrial fuels.

Aim: To produce compressed biogas (CBG) from Waste and Biomass sources like agricultural residue, cattle dung, sugarcane press mud, Municipal Solid Waste (MSW) and sewage treatment plant waste and make CBG available in the market for use as a green fuel.

The Bio-Gas is purified to remove Hydrogen Sulphide (H₂S), carbon dioxide (CO₂), and water vapor and compressed as Compressed Bio-Gas (CBG), which has methane (CH₄) content of more than 90%.

❖ **Kakadu 2022**

(Indian Express)

Why in News: INS Satpura and a P8 I Maritime Patrol Aircraft of the Indian Navy reached Darwin in Australia, for participation in the multinational Exercise Kakadu – 2022, hosted by the Royal Australian Navy (RAN).

- The exercise Kakadu is the RAN's flagship biennial regional International engagement activity and has grown in size and complexity since its inception in 1993.
- It is a two-week-long exercise, both in harbour and sea, involving ships and maritime aircraft from 14 navies. During the harbour phase of the exercise, the ship's crew will engage in operational planning interactions and sports activities with the participating naval forces.

Significance

- The exercise provides an opportunity for regional partners to undertake multinational maritime activities ranging from constabulary operations to high-end maritime warfare in a combined environment.
- It underscores India's vision of SAGAR (Security and Growth for All in the Region) and shared objectives of the two countries towards ensuring good order in the maritime domain and strengthening cooperation.

❖ **Global Estimates of Modern Slavery**

(Source: Down to Earth)

Why in News: The latest **Global Estimates of Modern Slavery** published by the **International Labour Organization (ILO)**, **International Organization for Migration (IOM)** and international human rights group **Walk Free**.

Highlights: It revealed that last year, some 50 million people were living in modern slavery:

- 28 million in forced labour and 22 million in forced marriages.
- It found that 10 million more people were trapped in modern slavery in 2021, compared to 2016 global estimates.

- Women and children were especially vulnerable.
- **Highest:** The Asia-Pacific region had the highest number of people in modern slavery and the Arab states the highest prevalence.
- **Pandemic:** The COVID-19 pandemic had increased the risk of modern slavery and made the target of ending it among children by 2025 and universally by 2030 even more difficult.
- **Impact:** These crises have led to unprecedented increases in extreme poverty, lower education rates, a rise in distress migration and significant increases in reports of gender-based violence. These factors are associated with increased vulnerability to forced marriage.

Recommendations: Improving and enforcing laws and labour inspections:

- Ending State-imposed forced labour
- Stronger measures to combat forced labour and trafficking
- Extending social protection, and strengthening legal protections, including raising the legal age of marriage to 18
- Addressing the increased risk of trafficking and forced labour for migrant workers

❖ **India Discrimination Report 2022: Oxfam India**

Why in News: Recently, Oxfam India Report stated that discrimination in India causes 100 percent of employment inequality faced by women in rural areas in the labour market and 98 percent in urban areas.

Report's findings are based on Government's data on employment and labour from 2004-05 to 2019-20.

Key Highlights

Declining Women Labour Force Participation Rate (LFPR): It is the proportion of the working-age population that engages actively in the labour market, either by working or looking for work. For women in India, it declined from 42.7% in 2004-05 to 25.1% in 2021, showing withdrawal of women from the workforce despite rapid economic growth during the same period.

Male-Female Pay Gap: In 2019-20, 60% of all males aged 15 and above had regular salaried or self-employed jobs; the rate for females was 19%.

Discrimination in Labour: Female casual workers earn about Rs. 3,000 less than their male counterparts.

Increased discrimination for SC/ST: Self-employed SC/STs earn Rs. 5,000 less than non-SC/STs and discrimination accounts for 41% of this gap

Gender Discrimination in rural and urban areas: Gender discrimination in India is structural which results in great disparities between earnings of men and women under 'normal circumstances'.

This can be inferred from the data for 2004-05, 2018-19 and 2019- 20. The earning gaps are large, both in rural and urban areas for casual workers ranging between 50 percent and 70 percent.

Reasons for Discrimination

- Societal and Employers prejudices are responsible for women's lower wages.
- Poor access to the education system and work experience.
- A large segment of the well qualified women want to join the workforce because of household responsibilities or social status.
- A massive drop in casual employment for women in urban areas during the first quarter of the pandemic

❖ Financial Stability and Development Council

(The Hindu)

Why in News: The 26th Meeting of the Financial Stability and Development Council (FSDC) was chaired by the Union Finance and Corporate Affairs Minister

Major Outcomes

- The Council, inter alia, deliberated on the Early Warning Indicators for the economy and our preparedness to deal with them,
- Improving the efficiency of the existing Financial/Credit Information Systems, issues of governance and management in Systemically Important Financial Institutions including Financial Market Infrastructures

Financial Stability and Development Council FSDC

- It has been constituted vide GOI notification dated 30th December, 2010.
- It is chaired by the Union Finance Minister
- It has been set up by the government in consultation with financial market regulators, to strengthen and institutionalize the mechanism for maintaining financial stability, enhance inter-regulatory coordination and promote financial sector development.
- The FSDC Sub-committee has also been set up under the chairmanship of Governor, RBI.
- Functions: It monitors macro-prudential supervision of the economy, including functioning of large financial conglomerates, and addresses inter-regulatory coordination and financial sector development issues.
- It also focuses on financial literacy and financial inclusion.

❖ Shanghai Cooperation Organisation (SCO)

Why in News: Recently, the 22nd Shanghai Cooperation Organisation (SCO) summit was held in Samarkand.

Meeting highlights

Upcoming Presidency of India: Uzbek President chaired the 22nd SCO summit of Samarkand. Uzbekistan in this summit handed over the rotating presidency of the Shanghai Cooperation Organisation (SCO) to India. As a result India will host the next SCO summit as a chairman of the Organisation in 2023.

Ukraine war: Indian and Chinese leaders expressed their concerns to the Russian President over the Ukraine war. It is reflective of the global worries about the effects of Moscow's aggression against the interests of people across the planet.

Iran: Iran has been admitted as a permanent member of the SCO at the Samarkand summit. Iran will attend the SCO as a full member from the Summit to be hosted by India in 2023. India's Bilateral meetings on the sidelines of SCO summit

SCO

- It is a permanent intergovernmental international organisation of Eurasian Nations with a secretariat in Beijing.
- It is a political, economic and military organisation that aims at maintaining peace, security and stability in the region.

Origin:

- Shanghai Five emerged in 1996 from a series of border demarcation and demilitarization talks between 4 former USSR republics and China.
- Kazakhstan, China, Kyrgyzstan, Russia and Tajikistan were members of the Shanghai Five.
- With the accession of Uzbekistan to the group in 2001, the Shanghai five was renamed the SCO.

