

**GOVERNANCE****Kala-azar Elimination: Bihar to Miss Deadline**

The new cases of Kala-azar or Visceral Leishmaniasis have been reported in Bihar's Muzaffarpur district, casting serious doubt on the state government's efforts to eradicate the disease in the state by 2022.

Bihar has already missed the Kala-azar elimination target four times since 2010.

The first deadline was 2010, under the National Health Programme, followed by 2015. It was later extended to 2017 and 2020 due to the government's failure to eliminate Kala-azar.

**Key Points****Kala-azar or Leishmaniasis:**

- Visceral leishmaniasis, also known as kala-azar, is characterized by irregular bouts of fever, substantial weight loss, swelling of the spleen and liver, and anaemia.
- If the disease is not treated, the fatality rate in developing countries can be as high as 100% within 2 years.
- It is a Neglected Tropical Disease (NTD) affecting almost 100 countries including India.
- NTDs are a diverse group of communicable diseases that prevail in tropical and subtropical conditions in 149 countries.
- It is caused by a parasite called Leishmania, which is transmitted through the bite of sand flies.

Visceral leishmaniasis, which is commonly known as **Kala-azar** in India, is fatal in over **95%** of the cases, if left untreated.

**Reasons for Missing the Deadline:**

- Lack Direction: Elimination programmes lack direction and Kala-azar returns year after year.
- Widespread Poverty: It was mostly the poor belonging to the Dalits, Other Backward Communities and Muslims, who were the main victims of the disease.
- Trend of Decline: However, there also has been a trend of decline in the number of Kala-azar cases in Bihar in the last few years.
- There were 23,084 cases in 2010, and by 2020, there were 2,712 cases, according to official data.

**National Kala-azar Elimination Programme**

- The National Health Policy-2002 set the goal of Kala-azar elimination in India by the year 2010 which was revised to 2015.
- Continuing focused activities with high political commitment, India signed a Tripartite Memorandum of Understanding (MoU) with Bangladesh and Nepal to achieve Kala-azar elimination from the South-East Asia Region (SEAR).
- Elimination is defined as reducing the annual incidence of Kala-azar to less than 1 case per 10,000 population at the sub-district level in India.
- Presently all programmatic activities are being implemented through the National Vector Borne Disease Control Programme (NVBDCP) which is an umbrella programme for prevention & control of vector borne diseases and is subsumed under National Health Mission (NHM).

**National Vector Borne Disease Control Programme**

- NVBDCP is the central nodal agency for prevention and control of six vector borne diseases i.e. Malaria, Dengue, Lymphatic Filariasis, Kala-azar, Japanese Encephalitis and Chikungunya in India.
- It works under the Ministry of Health and Family Welfare.

**INDIAN ECONOMY****National Employability Through Apprenticeship Program**

The National Employability Through Apprenticeship Program (NETAP) has released its latest edition of the Apprenticeship Outlook Report for 2021 (January-June 2021).

Apprenticeship is a Skill Training program wherein a person is engaged by a company as an apprentice and gains classroom (theory) learning for a short period, followed by on-the-job (practical) training.

**Key Points**

- About the National Employability through Apprenticeship Program:
- It was set up in 2014 as a 100% employer-funded Public-Private Partnership (PPP).
- The program was launched by the Ministry of Skill Development and Entrepreneurship and TeamLease Skills University (Gujarat).
- It is in accordance with the National Employability Enhancement Mission of the AICTE.
- NETAP was structured to overcome the challenges of the Apprenticeship Act, 1961.

- NETAP proposed to appoint 2 lac apprentices every year for the next 10 years. At peak capacity, it will be the world's largest apprenticeship program.
- It will help the unemployed youth to build skills through Learning by doing and Learning while earning along with providing them with access to practical skills.

**National Employability Enhancement Mission**

- It is a pioneering initiative taken jointly by AICTE and Government of India.
- Introduced in 2013, the NEEM aims to offer practical trainings to enhance employability of any person who:
  - Is either pursuing graduation/diploma in any technical or non-technical stream, or
  - Have discontinued studies of degree or diploma courses.
- A NEEM Trainee is any registered person who has a minimum education up to Class X and is between 16 to 40 years of age.
- A total of 23 industries have been listed in the NEEM where a trainee can be enrolled. It includes the automobile industry, pharmaceuticals, electronics & hardware, food processing, healthcare services and the financial sector.
- The NEEM is envisioned to place at least 10,000 students per year in registered companies or registered industries for the purpose of providing training.

**Key Findings of the Apprenticeship Outlook Report:**

- India's Apprenticeship Ecosystem: Some 41% of the employers in India are keen on hiring apprentices while 58% of enterprises want to increase the quantum of their apprenticeship hiring this year.
- Leading Cities: Chennai has emerged as the most apprentice friendly city.
- Among non-metro cities, Ahmedabad and Nagpur are the most promising cities for apprenticeship.
- Leading Sectors: The manufacturing, automobiles and ancillaries, and retail are the leading sectors.
- Positive Trend for Hiring Women Apprentices: Overall the preference for women apprentices has increased by 10% from the previous half year.
- This trend was more visible in Bengaluru, Mumbai and Kolkata.

**Significance:**

- India's working-age population is estimated to continue to increase through 2041. This will have major implications on the required rate of job creation in the economy.
- Statistics show that approximately 3% of children dropout after grade 5th and 8th in the country owing to socio-economic challenges. Apprenticeship can be an important mechanism for seamless transitioning from school to work and bridging of skill-gap in the workforce.

**INTERNATIONAL RELATION**

**Significance of India-Bangladesh Transport Connectivity: World Bank**

Recently, a World Bank report named "Connecting to Thrive: Challenges and Opportunities of Transport Integration in Eastern South Asia" stated that seamless transport connectivity between India and Bangladesh has the potential to increase national income by as much as 17% in Bangladesh and 8% in India.



The report analyzes the Bangladesh-Bhutan-India-Nepal (BBIN) Motor Vehicles Agreement (MVA).

**Key Points****Trade:**

- Bilateral trade accounts for only about 10% of Bangladesh's trade and a mere 1% of India's trade.
- In East Asian and Sub-Saharan African economies, intraregional trade accounts for 50% and 22% of total trade, respectively.
- High tariffs, para-tariffs, and nontariff barriers also serve as major trade barriers. Simple average tariffs in Bangladesh and India are more than twice the world average.

**Difficulty in Crossing Border:**

- Weak transport integration makes the border between Bangladesh and India thick. Crossing the India-Bangladesh border at Petrapole-Benapole, the most important border post between the two countries, takes several days.
- In contrast, the time to cross borders handling similar volumes of traffic in other regions of the world, including East Africa, is less than six hours.

**Isolated North-East:**

- Indian trucks are not allowed to transit through Bangladesh. As a result, the northeast of India is particularly isolated with the rest of the country and connected only through the 27-km-wide Siliguri corridor, also called the "chicken's neck". This leads to long and costly routes.

**Benefits of Better Connectivity:****Increased Real Income:**

- All districts in Bangladesh would benefit from integration, with the eastern districts enjoying larger gains in real income.
- States bordering Bangladesh such as Assam, Meghalaya, Mizoram, and Tripura in the northeast, and West Bengal on the west, and states further away from Bangladesh such as Uttar Pradesh and Maharashtra would also gain huge economic benefits from seamless connectivity.

**Increased Exports:**

- Will yield a 297% increase in Bangladesh's exports to India and a 172% increase in India's exports to Bangladesh.

**Strategic Importance:**

- Geographically, Bangladesh's location makes it a strategic gateway to India, Nepal, Bhutan, and other East Asian countries. Bangladesh can also become an economic powerhouse by improving regional trade, transit and logistics networks.

**Important Recommendations:****Strengthen the MVA:**

- Harmonizing driver's licensing and visa regimes.
- Establishing an efficient regional transit regime.
- Rationalizing and digitizing trade and transport documents.
- Liberalizing the selection of trade routes.

**Improving Regional Connectivity:**

- Expand the effective capacity of core transport and logistics infrastructure along regional corridors.
- Ensure competition in transport service markets.
- Deploy modern information technology infrastructure at land ports and seaports.
- Develop off-border custom clearance facilities in Bangladesh and India.

**Integration of Local Communities:**

- Connecting local markets to regional corridors.
- Removing logistics bottlenecks in export-oriented value chains.
- Improving women's participation in export-oriented agricultural value chains at the macro, community, and household levels.

**SCIENCE AND TECHNOLOGY****International Lunar Research Station: Russia and China**

China and Russia have agreed to build a International Lunar Research Station (ILRS), possibly on the moon's surface, marking the start of a new era in space cooperation between the two countries.

Russia is a part of International Space Station which is a habitable artificial satellite - the single largest man-made structure in low earth orbit.

**Key Points****International Lunar Research Station (ILRS):**

- The ILRS is a comprehensive scientific experiment base with the capability of long-term autonomous operation.
- The station would be built on the lunar surface and/or on the lunar orbit that would carry out scientific research activities such as the lunar exploration and utilization, lunar-based observation, basic scientific experiment and technical verification.

**Principle:**

- Russia and China will adhere to the principle of co-consultation, joint construction, and shared benefits.
- They will facilitate extensive cooperation in the ILRS, open to all interested countries and international partners.

**Significance:**

- ILRS will strengthen scientific research exchanges, and promote humanity's exploration and use of outer space for peaceful purposes.

**Other Programmes Related to Moon:**

- NASA's Artemis: Earlier, in 2020, National Aeronautics and Space Administration's (NASA) published the outline for its Artemis program, which plans to send the next man and first woman to the lunar surface by the year 2024.
- The Gateway is an outpost around the Moon to support human and scientific exploration in deep space.

**UAE's Rashid:**

- The United Arab Emirates (UAE) has decided to send an unmanned spacecraft named Rashid to the moon in 2024.

**China's Chang'e-4 and Chang'e-5 Missions :**

- Chang'e-4 is the first probe ever to explore the far side of the moon by China.
- Chang'e-5 mission will seek to collect lunar material to help scientists understand more about the moon's origins and formation.

**India's Similar Initiatives:****Chandrayaan-3:**

- India is working on Chandrayaan-3 which is successor to the Chandrayaan-2 mission and it will likely attempt another soft-landing on the lunar surface.

**Space Station:**

- India has set its eye on building its own space station in low earth orbit to conduct microgravity experiments in space in 5 to 7 years.

**SOCIAL JUSTICE****Pradhan Mantri Swasthya Suraksha Nidhi**

The Union Cabinet has approved the Pradhan Mantri Swasthya Suraksha Nidhi (PMSSN) as a single non-lapsable reserve fund for Health from the proceeds of Health and Education Cess.

The proceeds of Health and Education Cess are levied under Section 136-b of Finance Act, 2007.

**Key Points****Salient Features of the Pradhan Mantri Swasthya Suraksha Nidhi (PMSSN):**

- It is a non-lapsable reserve fund for Health in the Public Account.
- Proceeds of share of health in the Health and Education Cess will be credited into PMSSN.

Accruals into the PMSSN will be utilized for the flagship schemes of the Ministry of Health & Family Welfare namely,

- Ayushman Bharat - Pradhan Mantri Jan Arogya Yojana (AB-PMJAY).
- Ayushman Bharat - Health and Wellness Centres (AB-HWCs).
- National Health Mission.
- Pradhan Mantri Swasthya Suraksha Yojana (PMSSY).
- Emergency & disaster preparedness and responses during health emergencies.
- Any future programme/scheme that targets to achieve progress towards Sustainable Development Goals (SDGs) and the targets set out in the National Health Policy (NHP) 2017.

Administration and maintenance of the PMSSN is entrusted to the Ministry of Health & Family Welfare (MoHFW).

- In any financial year, the expenditure on such schemes of the MoHFW would be initially incurred from the PMSSN and thereafter, from Gross Budgetary Support (GBS).

**Benefits of PMSSN:**

- Enhanced access to universal & affordable health care through availability of earmarked resources, while ensuring that the amount does not lapse at the end of financial year.

**Significance of Spending on Healthcare:**

- Improved Developmental Outcomes: From an economic standpoint, better health improves productivity, and reduces losses due to premature death, prolonged disability and early retirement.
- Enhance Opportunities: One extra year of population life expectancy raises GDP per capita by 4%, investment in health creates millions of jobs, largely for women, through a much needed expansion of the health workforce.

**Health and Education Cess:**

- In the Budget speech 2018, the Finance Minister while announcing Ayushman Bharat Scheme, also announced replacement of existing 3% Education Cess by 4% Health and Education Cess.
- It is collected with the aim of addressing the educational and healthcare needs of rural families in India.

**AGRICULTURE****King Bhumibol World Soil Day - 2020 Award**

The Indian Council of Agricultural Research (ICAR) received the prestigious International “King Bhumibol World Soil Day - 2020 Award” conferred by the Food and Agriculture Organization (FAO), Rome.

The award was announced on the eve of World Soil Day - 2020 (5th December 2020) in view of the ICAR’s excellent contributions in “Soil Health Awareness” on the theme “Stop soil erosion, save our future” (2019 theme).

**Key Points****About King Bhumibol World Soil Day Award:**

- Launched in 2018, the King Bhumibol World Soil Day Award acknowledges individuals or institutions that raise public awareness of soils by organising successful and influential World Soil Day celebrations.
- The award, sponsored by the Kingdom of Thailand, is named after King Bhumibol Adulyadej of Thailand for his lifelong commitment to raising awareness of the importance of sustainable soil management and rehabilitation for food security, poverty alleviation and more.
- The former winners of the Award include Practical Action in Bangladesh in 2018 and the Costa Rican Soil Science Society (AACS) in 2019.

**Indian Council of Agricultural Research (ICAR):**

- It is an autonomous organisation under the Department of Agricultural Research and Education (DARE), Ministry of Agriculture and Farmers Welfare.
- It was established on 16th July 1929 and was formerly known as the Imperial Council of Agricultural Research.
- It is headquartered at New Delhi.
- ICAR is the organisation responsible for the coordination, guidance and management of agricultural research and education in India.
- In this capacity, ICAR oversees one of the largest networks of agricultural research and education institutes in the world, covering the whole country in the fields of horticulture, soil science, fisheries and animal sciences among others.

**Soil Degradation:**

- Soil degradation is the physical, chemical and biological decline in soil condition caused by its improper use or poor management, usually for agricultural, industrial or urban purposes.
- It can be the loss of organic matter, decline in soil fertility, and structural condition, erosion, adverse changes in salinity, acidity or alkalinity, and the effects of toxic chemicals, pollutants or excessive flooding.
- The soil degradation is caused by excessive pressure on land to meet the competing demands of the growing population for food, fodder and fibre.

- These processes, in turn, reduce agricultural productivity leading to social insecurity.
- Emission of greenhouse gases to the atmosphere resulting in climate change and global warming could be the major reason for soil degradation.
- Various human activities, such as the introduction of large scale irrigation canals and faulty land use lead to accelerated soil degradation through salinization, flooding, drought, erosion and waterlogging.

**The other causes of degradation due to direct/indirect human interventions are:**

- Deforestation and removal of natural vegetation
- Overgrazing
- Agriculture-related activities
- Over exploitation of the vegetation for domestic purpose

**NATIONAL DEVELOPMENT****INS Karanj**

Recently, Indian Navy's third stealth Scorpene class (of Project-75) Submarine INS Karanj has been commissioned at the Naval Dockyard Mumbai.

**Key Points**

- The previous INS Karanj (a Russian-origin submarine) was commissioned in 1969, at Riga in the erstwhile USSR. It had served the nation for 34 years up to 2003.
- The new INS Karanj would form part of the Western Naval Command's Submarine fleet.
- The ship's name, Karanj, is believed to be derived from the Karanja island (also known as Uran Island), a town in Raigad district, which lies in the south-east of Mumbai Harbour.
- The Indian Navy has its base at Uran near Navi Mumbai.

**Project 75:**

- It is a programme by the Indian Navy that entails building six Scorpene Class attack submarines.
- It is given support by the Department of Defence Production (Ministry of Defence) and Indian Navy throughout its various phases of construction.
- The Mazagon Dock limited (MDL) is manufacturing six Scorpene submarines with technology assistance from Naval Group of France under a USD 3.75 bn deal signed in October 2005.
- MDL aptly called "Ship Builder to the Nation", is one of India's leading Defence public sector undertaking shipyards under the Ministry of Defence.

**Other Submarines of the Ongoing Project-75:**

- Two submarines, Kalvari and Khanderi, have been commissioned into the Indian Navy.
- The fourth Scorpene, Vela, has commenced its sea trials.
- The fifth Scorpene 'Vagir' was launched in November 2020.
- The sixth and last submarine, Vagsheer, is being readied for boot together.

**Scorpene Class Submarines:**

- The submarines in the Project-75 Scorpene Class are powered by diesel-electric propulsion systems.
- Scorpene is one of the most sophisticated submarines, capable of undertaking multifarious missions including anti-surface ship warfare, anti-submarine warfare, intelligence gathering, mine laying, and area surveillance.
- Scorpene is a conventional powered submarine (diesel-electric) weighing 1,500 tonnes and can go up to depths of 300m.
- The Scorpene class is the Navy's first modern conventional submarine series in almost two decades since INS Sindhusastra, procured from Russia in July 2000.
- The Navy is looking to install Air Independent Propulsion (AIP) modules on all the Scorpene submarines to enhance endurance.

**Way Forward**

With the launch of Karanj, India further cements its position as a Submarine Building Nation and MDL has more than lived up to its reputation as Warship and Submarine Builders to the Nation. This is totally in sync with the current impetus of the Government towards Make in India and Atmanirbhar Bharat.

**IMPORTANT FACTS FOR PRELIM****Bharat Bangla Maitri Bridge**

Recently, the Prime Minister inaugurated Bharat Bangla Maitri Bridge in Tripura's South district.



**Key Points**

- The bridge ‘Maitri Setu’ has been built over the Feni river which flows between Indian boundary in Tripura State and Bangladesh.
- Feni originates in the South Tripura district. The river passes through Sabroom town on the Indian side, and meets the Bay of Bengal after it flows into Bangladesh.
- The 1.9 Km long bridge joins Sabroom (in Tripura) with Ramgarh (in Bangladesh).
- The name ‘Maitri Setu’ symbolises growing bilateral relations and friendly ties between India and Bangladesh.

**Constructed by and Cost:**

- The construction was taken up by the National Highways and Infrastructure Development Corporation Ltd at a project cost of Rs. 133 crore.
- The National Highways and Infrastructure Development Corporation Limited is a fully owned company of the Government of India.
- It is responsible for development & maintenance of National Highways & Strategic Roads of India.

**Significance:**

- Now Agartala (capital of Tripura) will become the nearest city to an international sea port in India.
- Tripura will become the ‘Gateway of North East’ with access to Chittagong Port of Bangladesh, which is just 80 km from Sabroom.
- Bangladesh and India have a long standing and time-tested Protocol on Transit and Trade through inland waterways.
- It would serve as a new trade corridor between the two countries, helping the Northeast states grow. It will enhance people-to-people contact.

**DAILY ANSWER WRITING PRACTICE**

**Qns. Explain the term earthquake swarms and how they are different from aftershocks and foreshocks.(150 Words)**

Ans:

An Earthquake swarm is a sequence of mostly small earthquakes with no identifiable mainshock. Swarms can last weeks and produce many thousands of earthquakes within a relatively small volume.

**Aftershocks & Foreshocks**

- Foreshocks are earthquakes that precede larger earthquakes in the same location. An earthquake cannot be identified as a foreshock until after a larger earthquake in the same area occurs.
- Aftershocks are a sequence of earthquakes that happen after a larger mainshock on a fault.
- When an earthquake occurs, the state of stress around the earthquake dramatically changes. The Earth wants to get back to some type of equilibrium, and that is the process that produces aftershocks.
- Aftershocks become less frequent with time, although they can continue for days, weeks, months, or even years for a very large mainshock.

**Characteristics of the Earthquake Swarms**

- Earthquake swarm’ is a series of low magnitude earthquakes that occur in a localized region and over a period of time ranging for days, weeks to even months.
- When seismic energy piles up inside the Earth and is released in small amounts from certain points, such a series of earthquakes can occur.

- The earthquake swarms occur at rates and with magnitudes that don't obey any of the "rules" that aftershock sequences follow.
- Sometimes, these rumblings of the Earth are also accompanied by acoustic or sound emissions.
- At volcanoes that are active and getting ready to erupt, swarms can be a sign of magma moving in the subsurface. However, not all swarms are associated with fluids and volcanoes, tectonic forces can also trigger swarms.
- For example, in India, a Geological Survey of India (GSI) report held that the Deccan Plateau region experiences earthquake swarms, owing to tectonic activity.
- They can come as foreshocks to the main earthquake which could be much greater in magnitude.

**Conclusion**

Seismic activities can be classified into either a major quake followed by aftershocks or an earthquake swarm. Therefore, both reflect the pent-up seismic activity inside the earth's crust.

**DAILY QUIZ**

1. Consider the following statements:

1. Feni river originates from Tripura and flows into Bangladesh.
2. Maitri Setu has been built over Padma river to symbolise friendly ties of India and Bangladesh.

Which of the statements given above is/are correct?

- a) **1 only**
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

2. Consider the following statements about Cess:

1. A cess is an additional tax imposed with a purpose of raising funds for a specific task.
2. Article 250 of the Indian Constitution prohibits the sharing of cess with the State Governments.

Which of the statements given above are correct?

- a) **1 only**
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

3. With reference to the 'Kala-azar', consider the following statements:

1. It is characterized by irregular bouts of fever and substantial weight gain.
2. It is caused by a virus called Leishmania.
3. It is transmitted through the bite of sand flies.

Which of the statements given above is/are correct ?

- a) 1 only
- b) **3 only**
- c) 1 and 3 only
- d) 1, 2 and 3

4. Consider the following statements:

1. Project-75 is a programme of the Indian Navy that entails building Scorpene Class attack submarines.
2. The submarines in the Project-75 Scorpene Class are powered by diesel-electric propulsion systems.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) **Both 1 and 2**
- d) Neither 1 nor 2

5. With reference to the 'BBIN Initiative' consider the following statements:

1. It is a strategic alliance to tackle China's intrusion in the Himalyan region.
2. The Motor Vehicles Agreement (MVA) was signed in Thimphu.

Which of the statements given above is/are correct?

- a) 1 only
- b) **2 only**
- c) Both 1 and 2
- d) Neither 1 nor 2