

CURRENT AFFAIRS PROGRAM

PRE-CUM-MAINS 2024

SEP 2023 : BOOKLET-3

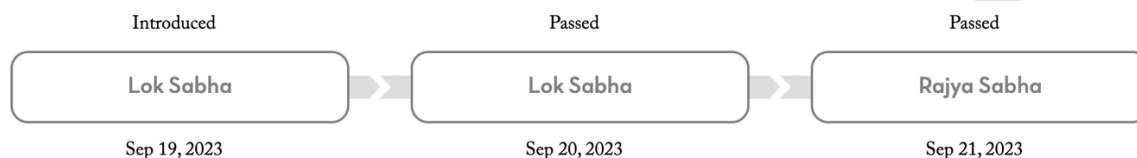
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1) PARLIAMENT: RESERVATION FOR WOMEN

– Why in news?

- » Women's Reservation Bill 2023 [The Constitution (128th Amendment) Bill, 2023] passed in both houses of Parliament (Sep 2023)



– Background:

- » Even though the 2019 Lok Sabha elections saw the highest ever presence of women in parliament, it still stands at **78 (14.39%) among 543 seats**. This percentage is well below the global average (24.6%) showing that in India gender discrimination is quite prevalent even in case of elections to the top positions in the country. At state assemblies' level this performance is more dismal with only **9% seats being filled by women**.

– Previous efforts to provide reservation for women in legislative bodies:

- » Bills amending the Constitution to reserve seats for women in Parliament and State Assemblies have been introduced in 1996, 1998, 1999, and 2008. The first three lapsed due to dissolution of their respective Lok Sabhas. The 2008 bill was introduced in RS and passed in RS in 2010, but it also lapsed with the dissolution of 15th LS.

– In 2015, the Report on the Status of Women in India noted that the representation of women in state assemblies and Parliament continues to be dismal.

- » **Decision making positions in political parties** have negligible presence of women.
- » It recommended reserving atleast 50% seats for women in local bodies, state assemblies, Parliament, ministerial levels, and all decision-making bodies of the government.

– The National Policy for the Empowerment of Women (2001) had stated that reservation will be considered in higher legislative bodies.

– **The Constitution (128th Amendment) Bill, 2023: (Naari Shakti Vandan Adhiniyam)**

- » **Reservation:** The bill reserves, as nearly as possible, **1/3rd of the seats** for women in LS (insertion of Article **330A**), State Legislative Assemblies (insertion of article **332A**), and the LA of NCT of Delhi (amendment to article 239AA). This will also apply to seats reserved for SCs and STs in Lok Sabha and State legislatures.
- » **Commencement of Reservation** (insertion of article 334A): This reservation will be effective after the census is conducted after the commencement of this bill has been published. Based on Census, **delimitation will be undertaken to reserve seats for women**. This reservation will be provided for **15 years**. However, this reservation will continue till such date as Parliament determines by a law.
- » **Rotation of Seats (Article 334A):** Seats reserved for women will be rotated after each delimitation, as determined by a law made by Parliament.

– **Arguments in support of reservation for women in Representative Institutions**

1. **Gender Equality: Ending Discrimination against women.**

- India has signed the International Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) adopted in 1979 by the UNGA.
- The Convention provides the basis for realizing equality between women and men through ensuring women's equal access to, and equal opportunities in, political and public life -- including the right to vote and stand for elections - as well as education, health and employment.
- But female representation in Indian legislative bodies is below global average in India. Our legislative bodies don't reflect the contemporary trends in women's education and excellence in varied field and thus are facing credibility crisis.

2. **Social Justice**

- Social justice generally refers to the idea of creating a society or institution that is based on the principles of equality and solidarity, that understands the value of human rights, and that recognizes the dignity of every human being.

3. **Change the Social Structure of India in many ways** - Women at leadership roles will have various other positive social impacts.

4. **Women reservation have been quite successful at PRI level.**

- A 2003 study about the effect of reservation for women in Panchayats showed that women elected under the reservation policy invest more in public goods closely linked to women's concern.

5. **Better decision making because of diversity of thought.**

- Priorities and assumptions of policies and legislations are affected because of the poor participation of the other gender.
- Women issues are generally ignored because of men's lack of empathy and understanding of the issue.

6. Women will be able to **empathize with other struggles** in a better way.

- Women who have got their rights after long struggles will empathize with other struggles better.

7. **Reduce Crime and Corruption**

- Statistically, currently women legislators seems to be less probable to be involved in a criminal activity or corruption cases when compared to men.

– **Criticism of giving reservation to women:**

1. **Perpetuating Gender Inequality**

- It would perpetuate the unequal status of women since they wouldn't be perceived to be competing on merit.

2. **Diverts attention from more important electoral reforms.**

- Criminalization of politics

- Inner Party Democracy
- 3. **Restricts choice of voters to women candidate**
 - A better option would be reservation in political parties and dual membership constituencies.
- 4. **Rotation reduces incentive to work for constituency.**
- 5. **Only promote family member of current politicians ; Quota will be appropriated by Stand-ins.**
 - Of all the women in Lok Sabha, around 70% already have other relatives in politics. This fact perhaps shows that women reservation will not be able to improve the "real" representation of women and only family members of some politicians whose seat becomes reserved will be elected from the seat.
- **Other Criticism of the Bill:**
 - » **Why the reservation not brought into force immediately?**
- **Way Forward:**
 - » **Capacity enhancement and training** for women politicians and representation.
 - » **User of gender-neutral terms in Parliamentary and government communications** (such as 'Chairperson' instead of chairman for RS chairperson)
 - Patriarchal terms reinforce gender biases and stereotypes against women and transgenders.
 - » **Steps to ensure that women's representation go to around 50%** even without the need of reservation:
 - **Genuine women empowerment** in all sectors right from school education, health and Higher Education.
 - **Addressing Gender based violence and harassment** and making public spaces safe and secure for everyone (including women)
 - **Focus on intra-party democracy** to ensure more women participants.
- **Conclusion:**
 - » Almost unanimous passage of the Naari Shakti Vandan Adhiniyam is a testament to an irreversible force of social change - it will extend beyond the legislature to we, the people.

2) HEALTH: NIPAH VIRUS AND ZOO NOTIC DISEASES

A) NIPAH VIRUS

- **Why in news?**
 - » There has been an outbreak of the deadly Nipah virus in Kerala which have infected five people and killed two of them (Sep 2023)
- **Introduction**
 - » According to WHO Nipah Virus (NiV) infection is a newly emerging zoonosis (a disease that can be transmitted from animals to humans) that can infect both humans and animals.
 - It is classified as a "highly pathogenic paramyxovirus" and handling it requires the highest grade of facilities called BS-4.

- » The natural host of the virus are **fruit bats** of the Pteropodidae family, Pteropus genus. Humans are generally infected by fruit bat or pigs. Human to human transmission is also known including in the hospital setting.
- **First identification**
 - » First identified during the outbreak of disease that took place in **Kampung Sungai Nipah**, Malaysia in 1998. In this case pigs were intermediate hosts. Since, then there have been several outbreaks even without intermediate hosts.
 - » In India it was first detected in Siliguri in 2001 and Nadia in 2007. This was a spillover of the outbreak in Bangladesh.
 - » Later in 2018, 19, 21 and again in 2023 it appeared in Kerala.
 - **Why?**
 - Kerala has several fruit plantations that host several species of bats.
 - Better health facilities in Kerala may be leading to better detection, surveillance etc., whereas in other states the cases may go undetected.
 - Note: In 2018, 21 and 2023, the outbreak occurred in Kozhikode district and in 2019 the outbreak was in Ernakulam district.
 - **Why only in these districts?**
 - Not clear. A 2021 study have found that Nipah virus as found to be in circulation in fruit bats in "many districts" in Kerala.
 - An ongoing national survey in 14 states by NIV Pune found NIPAH virus anti-body in **9 states**, including Kerala, and the UT of Puducherry.
- **Symptoms** of NiV can be **neurological, respiratory and pulmonary**. They include:
 - i. **Encephalitis (brain swelling) due to Inflammation of the brain**
 - ii. Confusion, disorientation and even persistent drowsiness
 - iii. Headache, fever, nausea and dizziness (flu like symptoms)
- **Fatality:** Around **40-70% depending on the local capability** for epidemiological surveillance and clinical management.
- **Prevention** (Avoid date palm sap; avoid close contact with NiV Patient; avoid direct contact with pigs/bats in endemic area)
- **Treatment / Vaccine**
 - » **Intensive Support care (no treatment or vaccine is available)**
 - » According to NCDC (National Centre for Disease Control), **Ribavirin**, an antiviral, may have a role in reducing mortality among patients with encephalitis caused by NIPAH virus disease.

B) WHY ZONOTIC DISEASES ARE FAST SPREADING TO HUMANS

- **Example Questions**
 - » "The diseases currently associated with forests (zoonotic diseases) can, in several ways be seen as a reaction to change in the relationship between humans and forests" Elaborate [10 marks, 150 words]
- **Introduction**

- » According to WHO, more than 300 zoonotic diseases have been observed over the past 70 years. It constitute about 60% of all human diseases and 75% of all the Emerging Infectious diseases. The last decade has been worst and have caught the humans unprepared. Some recent examples are that of Ebola, Zika, Nipah, Kyasanur Forest disease, COVID-19 etc.
- **Why increase in zoonotic diseases?**
 - » **Dramatic increase in population and mobility** -> Environmental changes , Deforestation etc. -> increase human contact with pathogens.
 - » **Increased demand for animal protein**
 - Livestock production is moving closer to towns in the form of poultry farms etc.
 - » **Rise in intense and unsustainable farming**
 - » **Increased use and exploitation of wildlife**
 - » **Unsustainable utilization of natural resources**
 - » **Many Indian villages are located within or around forests**
 - Thus, significant number of people interact with forests in their day-to-day lives
 - » **Global Warming**
 - Increases the population of insects like ticks that harbour and transfer the virus
 - » **Poor Preparation in terms of infra and human resource**
 - Zoonotic diseases become more problematic in countries where health infrastructure is poor (e.g. Ebola in Africa, Zika in South America, Nipah in Asia etc.)
 - » **Lack of awareness** especially in rural areas also
- **Implications**
 - » **Health**
 - » **Economic losses**
 - Death of farm/domesticated animals etc.
 - Negatively hampers tourism of the region.
- **Way forward: How to deal with increasing infectious zoonotic diseases**
 - » Coping with unprecedented rise in the risk of pandemics and epidemics requires a **holistic approach to medicine that treats human health as part of environmental health**. We need to be more proactive in restoring wildlife health.
 - There is a need of **closer monitoring and research** into how increasing ecological footprint of humans is affecting health and disease dynamics.
 - **Operationalising the One Health approach** in land-use and sustainable development planning, implementation and monitoring, among other fields.
 - » Further, there is a need to **increase R&D, improve awareness and better health infrastructure facilities** to deal with rising cases of zoonotic diseases.
 - » **Incentivize sustainable land management** practices and developing alternatives for food security and livelihoods that don't rely on the destruction of habitats and biodiversity.
 - » **Improving biosecurity and control**, identifying key drivers of emerging diseases in animal husbandry and encouraging proven management and zoonotic disease control measures;
 - » **Strengthening capacities among health stakeholders** in all countries;

3) HEALTH: NON-COMMUNICABLE DISEASES

- **Example Questions**
 - » For long NCDs in rural India have been ignored. Suggest some measures to deal with increasing cases of non-communicable diseases in rural areas. [10 marks, 150 words]
 - » Non-Communicable diseases have become the biggest cause of deaths in India. Discuss the key causes and consequences of increasing non-communicable diseases in India. [10 marks, 150 words]
- **Introduction**
 - » Non communicable diseases (NCDs), also known as chronic diseases, tend to be of long duration and are a result of a combination of genetic, physiological, environmental and behaviour factors.
 - » There are 4 main types of non-communicable disease are:
 1. **Cardiovascular diseases** (like heart attacks and strokes)
 2. **Cancers**
 3. **Chronic Respiratory diseases** (like chronic obstructed pulmonary disease and asthma)
 4. **Diabetes**
- Earlier, mostly elderlies in urban areas were found to be suffering from NCDs. But, now all age groups in all regions (both urban and rural) are increasingly becoming vulnerable to the non-communicable diseases.
- **Key Factors Responsible for increasing NCDs**
 - » **Modifiable Behavioural factors** such as tobacco use, physical inactivity, unhealthy diet etc.
 - » **Malnourishment**
 - **Malnourishment** makes children vulnerable to NCDs in later phase of life and is one of the major causes of NCDs in India.
 - » **Pollution** has emerged as a major challenge
 - Ambient **air pollution** and **indoor air pollution** have an impact on CVD and mortality. Various studies have shown that household pollution is the third top risk factor in low income countries.
 - » **Increasing Life Expectancy**
 - Life expectancy is increasing in India and with it we see an increase in old age population who are more vulnerable to NCDs like high blood pressure, diabetes and cancers.
 - » **Inadequate health facilities**
 - It prevents early screening, detection and thus awareness generation about NCDs.
- **NCDs are increasing in Rural India too:**
 - » **NCDs in Rural India is affecting a relatively younger population**
 - May be, because of **poor nutrition** availability during early life. So, there is a need to screen younger population in rural India for chronic diseases
 - » **Very Less awareness**
 - This hinders lifestyle changes and preventive methods.
 - » **Poor health facilities**
 - In rural areas, on many occasions facilities for diagnosis and treatment are not available resulting in late diagnosis and treatment.
 - » **Lack of systematic mechanism to collect data on NCDs from rural India**

- This hinders efforts at measuring the problem, guiding interventions and monitoring them effectively.
- **Impact of NCDs**
 - » **Largest Cause of Death**
 - According to WHO, nearly 61% (63% globally) of all deaths in India are caused by NCDs including heart disorders, cancer and diabetes. According to MoH&FW cancer alone causes more than 5 Lakh deaths in India every year.
 - » **Socio-Economic Impact**
 - **NCDs worsens Poverty:**
 - It threatens fight against poverty reduction and hinders achievement of SDGs.
 - This also burdens government with more health expenditure and **reduces economic output** of the population.
 - It also leads to **heavy burden on India's healthcare system.**
 - » **International Image -> India's soft power weakens**
 - It questions a rising superpowers ability to tackle health problems of its own.
- **Some Recent Steps taken by India**
 - i. **National Health Policy, 2017**
 - It aims at reducing premature mortality from cardiovascular diseases, cancers, diabetes, or chronic respiratory diseases by 25% by 2025.
 - The policy recognizes inter-play of three actions -> Policy & Surveillance, Strengthening of Healthcare systems, and Healthcare Financing.
 - ii. **National Program for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Strokes (NPCDCS)**
 - Program by MoH&FW, launched in 2008
 - It is focused on health promotion for general population and Disease Prevention for the High Risk Groups
 - iii. **India Hypertension Management Initiative (IHMI)**
 - Launched in Nov, 2017 as a collaborative project between ICMR, MoH&FW, State governments, WHO etc
 - It is aimed at strengthening the cardio-vascular disease component of the health ministry's National Program for Control of Cancer, Diabetes, Cardiovascular diseases and Stroke (NPCDCS).
 - iv. **1.5 lakh health and wellness centres** to be established throughout the country
 - These health and wellness centres will promote early screening, diagnosis and treatment.
 - v. **Awareness Initiatives** like the recently launched 'Eat Right Movement'
 - vi. **Eat Right Mela** by FSSAI aims to usher in a 'new food culture' by nudging the businesses and consumers to adopt safe, healthy and sustainable food practices in India.
- **Way forward: Prevention and Control of NCDs**
 - » The prevention and control of NCDs will require comprehensive approach in which all sectors including health, education, finance, transport, urban planning and others will need to play a role in reducing the risk factors and treating the existing NCDs.
 - » **Promoting healthy diet, physical activity etc**

- » **Reducing both outdoor and indoor pollution** will go a long way in fighting against chronic respiratory diseases, cardiovascular diseases, diabetes and lung cancer.
- » **Restricting use of Sin goods**
 - Prohibition or higher taxes on tobacco products and alcohol
 - More duties on unhealthy food
 - Replacing trans fats with poly unsaturated fats
- » **Effective Policy implementation**
 - Government of India has already launched a number of initiatives such as National Health Policy, India Hypertension initiative, establishment of 1.5 lakh health and wellness centres etc.
 - Proper implementation of these policies and programs will go a long way in reducing NCDs in India.
- » **More Investment in better management of NCDs**
 - More facilities for detection, screening and treatment of these diseases especially in rural areas and for providing palliative care for people in need.
 - This kind of investment has huge economic value as it will not only ensure better productivity but reduces cost of treatment on later stages.
- » **More R&D** to fund cost effective solutions and better ways of management of diseases.

C) BLOOD PRESSURE / HYPER TENSION

- **Why in news?**
 - » Who releases its first-ever report on global impact of high BP, states approximately four in every five not treated adequately (Sep 2023)
- **What is Blood Pressure?**
 - » **Blood pressure** is a measure of how much the blood moving through your arteries pushes against the vessel walls. According to medical standards, the reading on a doctor's BP monitor going above 140/90 accounts for **hypertension**. **High Blood Pressure (Hypertension) is a serious medical condition** that significantly increase the risks of heart, brain, kidney and other diseases.
 - » A large number of people who suffer from hypertension are unaware of this, therefore it is also sometimes referred as a silent killer.
 - » It is a condition that knows no boundaries affecting people of **every age** and **different socio-economic conditions**. It can't be cured but can be managed through lifestyle changes, medication, and regular monitoring.
- **WHO Report on Global Impact of High BP (Sep 2023)**
 - Hypertension affects 1 in 3 adults worldwide and around 1/3rd of the adults with hypertension are unaware of their conditions. Nearly 4/5 people with hypertension are inadequately treated. Scaling up coverage can avert 76 million deaths between 2023-2050.
- The number of people living with hypertension (blood pressure of 140/90 mmHg or higher or taking medication for hypertension) doubled between 1990 and 2019, from 650 million to 1.3 billion.
- **Hypertension Situation in India:**
 - **As per a paper published in *The Lancet*:**
 - Hypertension is the most important risk factor for death and disability in India.

- Less than 1/4th of hypertensive patients in India had their blood pressure under control during 2016-2020.
 - There is a growing prevalence of hypertension amongst younger adults and those from lower socioeconomic backgrounds.
 - **NFHS-5** reported a hypertension prevalence of 24% in men and 21% among women, an increase from 19% and 17% respectively from the previous round (NFHS-4)
- **Key Issues with Hypertension situation in India:**
 - i. **Lack of Awareness:** As per WHO, 1/3rd of the hypertension patients don't even know that they are suffering from hypertension.
 - ii. **Limited Access to healthcare services**
 - iii. **Inadequate adherence** to medication and lifestyle modifications
- **Way Forward:**
 - » **Improving Awareness:**
 - » **Lifestyle changes:** Eating Healthier diet, quitting tobacco, being more active -> this can help lower the blood pressure.
 - Other changes like reduced salt intake, reduce alcohol consumption can also help.
 - » **Early Detection and Effective management** have to be prioritized by countries.
 - Hypertension can be controlled effectively with simple, low-cost medication regimens and yet only 1/5 people in hypertension have controlled it.
 - **Medication adherence** is crucial for control. Forgetfulness among elderly to take medication, medication availability, and affordability pose barriers.
 - Strengthening hypertension control must be part of every country's journey towards universal health coverage.

2. PRELIMS FACTS

1) PLACES IN NEWS: NAGORNO-KARABAKH

Caucasus Region:

It is a region between Black Sea and the Caspian Sea and mainly occupies **Georgia, Armenia, Azerbaijan and Southern Russia**.

It is home to the **Caucasus Mountains** which has been traditionally considered a natural barrier between Eastern Europe and Western Asia.

Europe's Highest Mountain - Mount Elbrus (5,642 meters) (located in Russia) is in the western part of the Greater Caucasus Mountain range.



NAGORNO-KARABAKH CONFLICT BETWEEN ARMENIA AND AZERBAIJAN

Straddling western Asia and Eastern Europe, Nagorno-Karabakh is internationally recognised as part of Azerbaijan, but most of the region is controlled by Armenian separatists.

Nagorno-Karabakh has been part of Azerbaijan territory since the Soviet era.

When the Soviet Union began to collapse in the late 1980s, **Armenia's regional parliament voted for the region's transfer to Armenia**; the **Soviet authorities turned down the demand**.

Note: Religious differences: People of Nagorno Karabakh are primarily Christians whereas Azerbaijan is Muslim dominated.

Years of clashes followed between Azerbaijan forces and Armenian separatists.

The violence lasted into the 1990s, leaving tens and thousands dead and displacing hundreds of thousands.



In 1994, Russia brokered a ceasefire, by which time **ethnic Armenians had taken control of the region**.

In **November 2020**, **Russia brokered a new peace deal between Armenia and Azerbaijan**, after the two countries engaged in military conflict for six weeks over the disputed region in South Caucasus. The **armistice** also placed a **Russian Peacekeeper contingent** in Nagorno-Karabakh.

Since then, **Azerbaijan alleges** that **Armenia has smuggled in weapons** since then.

2023:

In **Sep 2023**, Azerbaijan's forces **opened fire on Armenian positions** in the **Nagorno-Karabakh region**. It claimed that it was an **"anti-terrorist operation"**. There were concerns that the tensions could escalate into full fledged war.

Later, on **20th Sep 2023**, **Azerbaijan halted military action** after its battlefield successes forced Armenian separatist forces to **agree to a ceasefire**. Key Highlights:

1. Azerbaijani military had **routed separatists** and then **separatist agreed to cease fire**.
2. They are meant to **disband and disarm** under the deal.
3. **Talks on future of the region** due to start in 1-2 days.

Highly tensed relations between Armenia and its long-time ally Russia.

- Armenia angered Russia, which maintains a military base in the country, by **holding military exercise with the USA in Sep 2023** and by **moving towards ratifying Rome Convention** that created International Criminal Court, which has indicted Russian President Vladimir Putin.

2) PLACES IN NEWS: AGUMBE

– **Why in news?**

- » How Karnataka's Agumbe lost to **little known Udupi towns** (Sep 2023)

– **About Agumbe:**

Agumbe Rainforest Complex (ARC) is located in Shivamogga district of Karnataka in Western Ghats. It is known for its very heavy rainfall of over 8,000 mm during Monsoon. Therefore, it had also been christened as the **Cherrapunji of the South**. Britishers had erected the first rain gauge here in 1882.

However, there might have been many places in Karnataka which received more rainfall than Agumbe. But they didn't have rain gauge. The situation changed in 2022 when many of them got their own rain gauge which became operational in 2023. Therefore, Karnataka's Agumbe is losing to several towns of Udupi.



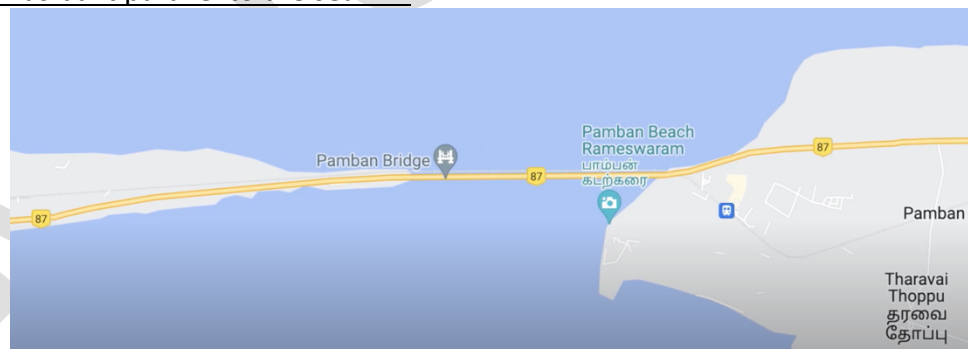
3) INFRASTRUCTURE: PAMBAN BRIDGE – INDIA'S FIRST VERTICAL LIFT RAILWAY SEA BRIDGE

– **Why in news?**

- » New Pamban Bridge may miss its Nov 2023 deadline (Sep 2023)

– **Details**

- » **Background:** The existing Pamban Rail Bridge, which connects Rameswaram to mainland India is more than a 100 years old. It was built in 1914 and connects **Mandapam** to the **Rameshwaram Island**. Till 1988, it was the only link connecting the two locations when a new road bridge was built parallel to the sea link.



– **New Railway Bridge:**

- » The state-of-the-art bridge will be country's first vertical lift railway sea bridge.
 - The bridge is **stretches for 2.05 km** and will have a **63-meter stretch which will lift up while remaining parallel to the deck to allow access to the ships**.
- » It will help railways to operate trains at higher speed and will carry more weight and increase the volume of traffic.
- » It is being executed by **Rail Vikas Nigam Limited (RVNL)** at a cost of Rs 535 crores.

– **Missing Deadlines (Sep 2023)**

- » It's initial deadline was March 2023, which was then extended to July 2023 and then to Nov 2023. However, in Sep 2023, due to increased wind speed at the project site the work has been hampered.
- » As of Dec 2022, 84% work has been completed.

– **Video:**

- » See video in the link: <https://www.thehindu.com/news/national/tamil-nadu/watch-pamban-bridge-indias-first-vertical-lift-railway-bridge/article65487414.ece> to get better understanding.

4) BIODIVERSITY: GAUR / INDIAN BISON

It is also known as Indian Bison and is a bovine native to South Asia and Southeast Asia. It is the biggest among wild cattles.

IUCN: VU

Habitat: Largely confined to evergreen forests or semi-evergreen and moist deciduous forests.

Historical Distribution: It occurred throughout mainland south and southeast Asia.

Present Distribution:

- But today the population is fragmented, with it being extinct from Sri Lanka and Malaysian Peninsula.
- They are largely confined to evergreen forests or semi-evergreen and moist deciduous forests, but also inhabits deciduous forest areas at the periphery.

Note: The domesticated form of the gaur is called gayal (*Bos frontalis*) or mithun.



Distribution in India:

- **Western Ghats** in particular Wayanad - Nagarhole - Mudumalai - Bandipur complex constitute one of the most extensive extant strongholds of gaur. Nilgiri forest division is estimated to have a population of more than 2,000.
- **Eastern Ghats** also has some population of gaurs in Odisha and Andhra Pradesh.

Interesting Fact: The famous drink "Red Bull" is based on a Thai drink 'Gratin Daang', meaning "red gaur".

***Bos frontalis* (Mithun) - Domesticated form of Gaur:**

Recent News: The Food Safety and Standards Authority of India (FSSAI) has recognized the mithun as a '**food animal**' with effect from 1st Sep. With this, the mithun can be commercially farmed and its meat processed for pickles, soups, wafers and biryani.

Work is on to help farmers and tribal village communities benefit commercially from the sale and processing of Mithun.

The **Animal** is endemic to Arunachal Pradesh, Nagaland, Manipur and Mizoram. It is semi-domesticated and is reared in free range forest ecosystem. The only supplementary feed that it needs is salt.

It is the **state animal** of both Arunachal Pradesh, and Nagaland. The slaughter of the mithun is traditionally reserved for special occasions such as festivals or weddings (and now a days - elections)

Biodiversity Significance: The "food animal" status can increase the commercial value and may increase the population of Mithun.

Mithuns: From farms to the table



5) BIODIVERSITY: RHINOS

D) WORLD RHINO DAY, 22ND SEP

- World Rhino Day was first announced by WWF in South Africa in 2010.
- It is observed every year on 22nd Sep and celebrates all five species of rhino: Black, White, Great-one horned, Sumatran Rhino and Javan Rhino.
- It serves as a poignant reminder of the urgent need to protect these magnificent creatures that roam the forested landscapes of our planet.

E) VARIOUS SPECIES OF RHINO

- **2 Rhino in Africa:**
 - » White Rhino: NT

- **Great Comeback:** From a population of around 100 individuals, the population had increased to more than 21,000 at the end of 2012. But since then, the population has decreased by 24% (to around 16K). But it is still the largest population of any Rhino species on earth.
- » **Black Rhino: CR**
 - Population is recently increasing. They are spread across 12 African countries. From a population of around 100,000 in 1960s, they had come down to 2,300 individuals in the 1990s. However, intense protection and management efforts have led to stabilize and increased population by 28% in the past decade.
- **3 Asian Rhino**
 - » **Greater One Horned Rhino: (VU)**
 - » **Javan Rhino: CR**
 - Stable Population (76)
 - » **Sumatran Rhino: CR**
 - Decreasing population (34-47)

F) GREAT INDIAN ONE-HORNED RHINO (VU)

Details: Fifth largest land animal.

Threats:

- » Poaching - rhino horn great demand in China and other Asian countries for traditional medicines.
- » Habitat loss
- » Fragmentation of Habitat

Habitat and Distribution

- » **Past:** Once ranged throughout the entire stretch of Indo-Gangetic Plain.
 - Population went down to a mere 200 in the early 1990s and was declared to be endangered.
- » **Present:** Found only in the tall grasslands and forests in the foothills of the Himalayas. Today more than 3,000 Rhino live in wild, most of them confined in Assam (2500+). They range from few pockets in Southern Nepal, northern Bengal, and Brahmaputra Valley.
 - **Today**, they are mostly found in 7 protected areas:
 - **In Assam:** Kaziranga National Park, Pobitora WLS, Orang NP, Manas NP
 - **In WB:** Jaldapara NP and Gorumara NP
 - **In UP:** Dudhwa NP

Indian rhinoceros^[1]



Indian rhinoceros (*Rhinoceros unicornis*)
in the Kaziranga National Park

Conservation status



6) BIODIVERSITY: NEW FISH SPECIES DISCOVERED – PTERYGOTRIGLA INTERMEDICA (SEP 2023)

The scientists of Zoological Survey of India (ZSI) have discovered this new fish species. It is the fourth species of *Pterygotrigla* genus reported in India so far.

It is commonly known as gurnards or sea-robins and belong to the family Triglidae.

Discovered where: It's a marine water fish discovered from **Digha Mohana** in WB.



7) S&T: RASHTRIYA VIGYAN PURUSKAR (SEP 2023)

- Rashtriya Vigyan Puruskar is a new set of National Awards in the field of Science, Technology and Innovation. It will be one of the highest recognitions in the field of science, technology and innovation in India.
- **Who will be eligible?**
 - » Scientists/technologists/innovators working in government, private sector organizations or any individual working outside any organization, who have made contributions in terms of path-breaking research or innovation or discovery in any field of science, technology, or technology-led innovation shall be eligible for awards.
 - » **People of Indian Origin** staying abroad with exceptional contributions benefitting the Indian communities or society shall also be eligible for the awards.
- The award shall be given in following **Four Categories**:
 - » **Vigyan Ratna (VR)**: It will recognize lifetime achievements & contributions made in any field of S&T.
 - » **Vigyan Shree (VS)** award will recognize distinguished contributions in any field of S&T.
 - » **Vigyan Yuva-Shanti Swarup Bhatnagar (VY-SSB)** award will recognize and encourage young scientists upto the age of 45 years who made an exceptional contribution in any field of S&T.
 - » **Vigyan Team (VT)**: It will be given to a team comprising of three or more scientists, researchers, innovators etc who have made an exceptional contribution in any field of S&T.
- It will be given in **13 domains**, namely Physics, Chemistry, Biological Sciences, Mathematics & Computer Science, Earth Science, Medicine, Engineering Sciences, Agricultural Science, Environmental Science, Technology & Innovation, Atomic Energy, Space Science and Technology, and Others. The representation from each domain/field, including gender parity will be ensured.
- All nominations for these awards will be placed by **the Rashtriya Vigyan Puraskar Committee (RVPC)** to be headed by the Principal Scientific Advisor (PSA) to GoI and comprising of Secretaries of Science Department, members of Sciences and Engineering Academies, and some distinguished scientists and technologists from different fields of S&T.
- **Important Days**:
 - » The nomination for these awards will be invited every year on 14th Jan which would remain open till 28th Feb (National Science Day).

- » The awards shall be announced on 11th May (National Technology Day) every year. The Award Ceremony for all categories will be held on 23rd of August (National Space Day).
- All awards will have a Sanad & Medal.

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