



DAILY CURRENT AFFAIRS

Time: 45 min

Date: 20-11-2023

Table of Content

India-UK Free Trade Agreement	1
India-Sri Lanka Fishermen Row	3
Maldives Reviewing Agreements With India	5
Indo-Pacific Regional Dialogue 2023 (IPRD-2023)	6
AI vs Human Labour	8
Automation and Robotics	10
Road safety in India	11
Facts In News	12
Birth Anniversary of Rani Laxmi Bai	12
Chhath Puja	13
Indira Gandhi Peace Prize	13
Syllabus: Miscellaneous/ Awards	13
Onattukara Sesame	14
Chimaeras	15
Freemartins	16
Zaglossus attenboroughi	16
Jaguars	17
Pancorius sebastiani	18
Namita Chattopadhyay Sahitya Samman 2023	19

India-UK Free Trade Agreement

Syllabus: GS2/International Relations

News

- Chief negotiators of India and the U.K. are expected to hold the next round of talks for the proposed **India-UK Free Trade Agreement (FTA)**.

What Is a Free Trade Agreement (FTA)?

- A free trade agreement is a pact between two or more nations to reduce barriers to imports and exports among them.
- Under a free trade policy, goods and services can be bought and sold across international borders with little or no government tariffs, quotas, subsidies, or prohibitions to inhibit their exchange.
- **India has signed 13 Regional Trade Agreements (RTAs)/Free Trade Agreements (FTAs)** with various countries/regions namely, Japan, South Korea, countries of ASEAN region and countries of South Asian Association for Regional Cooperation (SAARC), Mauritius, United Arab Emirates and Australia.

India-UK FTA

- India and the U.K. launched the talks for free-trade agreement (FTA) in 2022.
- There are 26 chapters in the agreement, which include goods, services, investments and intellectual property rights.
- **The Indian industry** is demanding greater access for its skilled professionals from sectors like IT, and healthcare in the UK market, besides market access for several goods at nil customs duties.
- **The U.K.** is seeking a significant cut in import duties on goods such as scotch whiskey, automobiles, lamb meat, chocolates along with more opportunities for U.K. services in Indian markets in segments like telecommunications, legal and financial services.

Benefits for India

- An India-U.K. FTA could boost trade with India by **£28 billion** a year by 2035 and increase wages across the U.K. by **£3 billion**.
- India's labor-intensive sectors such as apparel and gems and jewelry will have increased penetration in the U.K. market.
- **Boost for other negotiations:** The trade pact could also boost India's negotiations in at least two other deals:
 - One with the European Free Trade Association—the four-nation bloc of Iceland, Liechtenstein, Norway and Switzerland—and
 - An interim trade pact with Canada.

Challenges

- **Issue of carbon tax:** UK is looking to impose a levy on metal imports based on carbon emissions. An EU-style carbon border adjustment mechanism (CBAM) will hurt India's exports to the UK even if India wins significant removal of tariffs.
- **Non-tariff barriers (NTBs):** It often comes in the form of regulations, standards, testing, certification, or pre shipment inspection that are aimed at protecting human, animal, or plant health and the environment.
- **Other issues** which need resolution include rules of origin; intellectual property rights (IPRs); social security agreement; liberalization of norms in services sectors like banking and insurance etc.

Bilateral investment treaty (BIT)

- Between India and the U.K. an investment treaty is being negotiated as a separate agreement.
- These investment treaties help in promoting and protecting investments in each other's country. The main point of contention involved in this pact is about the mechanism for the settlement of disputes.

'Rules of origin' provision

- Under this provision, a country that has inked an FTA with India cannot dump goods from some third country in the Indian market by just putting a label on it.
- It has to undertake a prescribed value addition in that product to export to India. Rules of origin norms help contain dumping of goods.

Source: [IE](#)

India-Sri Lanka Fishermen Row

Syllabus: GS2/India and its Neighbourhood Relations

Context

- The Sri Lankan government recently released 22 Indian fishermen who were detained by its Navy on charges of poaching.

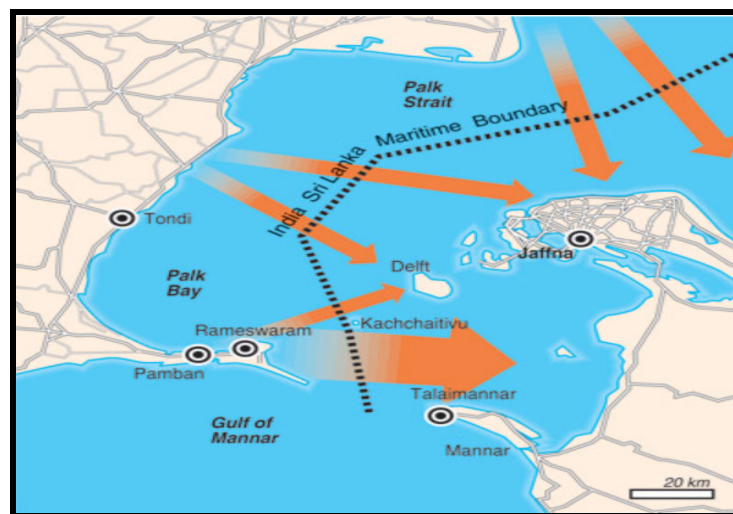
India-Sri Lanka Fishermen Rows

- **Ownership of Katchatheevu Island:**
 - There are concerns about **Tamil fishermen entering Sri Lankan waters and the ownership of Katchatheevu Island**, where Tamil fishermen had traditional fishing rights for centuries.
 - **In 1974, the island was ceded to Sri Lanka** after an agreement was signed by Indira Gandhi between the two countries without consulting the Tamil Nadu government.
 - The agreement **allowed Indian fishermen “access to Katchatheevu for rest, for drying of nets and for the annual St Anthony’s festival” but it did not ensure the traditional fishing rights.**



- **Proliferation of trawlers in Indian coast:**

- Trawlers are mechanised boats with highly exploitative fishing nets unlike most of the poor fishermen on the Sri Lankan coast who use traditional fishing methods.
- The use of mechanised bottom trawlers has become a bone of contention between the fishermen of the two countries.
- **Demarcation of the IMBL:**
 - The fishermen of Tamil Nadu experience an issue with the **lack of fishing areas consequent to the demarcation of the International Maritime Boundary Line (IMBL).**
 - Just as sections of fishermen from the Palk Bay bordering districts of Tamil Nadu continue to transgress the IMBL, cases of many of them getting arrested and their boats being impounded by the Sri Lankan authorities continue.



- **Harassment by Sri Lankan Navy:**
 - Indian fishermen face highly restricted access to traditional fishing grounds, increased harassment by the Sri Lankan Navy, and arrests by the Sri Lankan Navy on trespassing charges.

Way Ahead

- **Regular patrolling, establishment of communication channels, and installation of warning systems** could significantly reduce the incidents of harassment and apprehension.
- **Regular meetings and consultations of the Joint Working Group** reconstituted in 2016, would help in building trust, facilitate effective communication and ensure smooth fishing operations.

Source: TH

Maldives Reviewing Agreements With India

Syllabus: GS2/International Relations

In News

- The Newly elected Maldives Government **is reviewing the agreements signed with India.**

About

- The Government is reviewing **over 100 agreements**, including in areas of defence and security, that were **signed with the previous government.**
- This comes after the newly elected president, **Mohamed Muizzu**, requested India to **withdraw all of its soldiers from the island nation.**
- The review of these agreements **raises questions about the overall bilateral ties** between India and the Maldives.
- The Maldives is also **one of the biggest beneficiaries of India's Neighbourhood First policy.**

Evolution of India and Maldives Relations

- The [relationship between India and the Maldives](#) has evolved over the years, influenced by **geopolitical, economic, and strategic considerations.**
- **Early Diplomatic Ties (1965-1978):** The Maldives gained independence from the British **in 1965**, and established diplomatic relations with India.
 - India was one of the first countries to recognize the Maldives as an independent nation.
- **Strategic Partnership (1978-1988):** The signing of the **Maritime Boundary Agreement in 1979** helped define the maritime boundaries between the two countries.
- **Political Turbulence (1988-2008):** The relationship faced challenges in **1988** when a **coup attempt in the Maldives** led to the intervention of Indian forces in **Operation Cactus**.
 - India's military intervention was aimed at thwarting the coup and preserving the Maldives' political stability.
 - This event **temporarily strained diplomatic relations** but was later resolved.
- **Normalization and Economic Cooperation (2008-2013):** In 2008, the Maldives experienced a peaceful political transition, and Mohamed Nasheed became the President.
 - The relationship between India and the Maldives improved, focusing on **economic cooperation, trade, and people-to-people ties.**
 - India provided developmental assistance to the Maldives, particularly in infrastructure projects and capacity building.
- **Period of Strain (2013-2018):** The relationship **faced challenges** during the presidency of Abdulla Yameen, with concerns over issues such as democratic backsliding, human rights, and a perceived **tilt towards China.**

- The Maldives' growing engagement with China, including infrastructure projects under the [Belt and Road Initiative](#), raised strategic concerns for India.
- **Renewed Engagement (2018 Onward):** The **election of Ibrahim Mohamed Solih** as the President of the Maldives in 2018 marked a **shift in bilateral relations**. There was a renewed emphasis on strengthening ties with India.
 - The two countries reaffirmed their commitment to democratic values, and India extended financial assistance for various developmental projects.

Conclusion

- The evolution of India-Maldives relations reflects a combination of geopolitical dynamics, changes in leadership, and shared regional interests.
- India is steadfast in its commitments towards Maldives and **has always walked the extra mile** towards building relations.
- Any impulsive steps to undo the carefully nurtured all encompassing partnership is **likely to harm Maldives more than it would India**.

Source: [TH](#)

Indo-Pacific Regional Dialogue 2023 (IPRD-2023)

Syllabus: GS3/ Security, Defence

Context:

- The three-day long Indo-Pacific Regional Dialogue 2023 (IPRD-2023) concluded in New Delhi.

IPRD-2023

- It is the 5th edition of IPRD, which started in 2018.
- **Organised by:** National Maritime Foundation (NMF)
- **Theme:** Overarching theme was "Geopolitical Effects on Maritime Trade and Connectivity in the Indo-Pacific."
- **Major discussions done:**
 - Role of oceans in establishing global connections for India.
 - Comprehensive strategy of ensuring security through SAGAR (Security and Growth for All in the Region)
 - Commitment to a clean and safe maritime environment with Swachh Sagar Surakshit Sagar.
- NMF signed MoUs of cooperation with four prominent think-tanks in the Indo-Pacific, namely:
 - Nepal Institute for International Cooperation and Engagement (NIICE), Nepal.
 - Global Centre for Policy and Strategy (GLOCEPS), Kenya.
 - Diplomatic Academy of Vietnam (DAV), Vietnam.
 - The Energy and Resources Institute (TERI), New Delhi.

Indo-Pacific Regional Dialogue

- The Indo-Pacific Regional Dialogue is the Indian Navy's annual premier global conference on maritime strategy, conducted at the apex level.

- **Objective:** It is a forum for discussions and engagements on geopolitical, economic, and security issues in the broader Indo-Pacific region.
- It engages globally renowned experts from India and abroad, senior officers from the Indian Armed Forces and the Government of India, scholars and the public-at-large in intensive deliberations in several sub-topics

Significance

- **India's Stature in World:** Helps India in reinvigorating historical strengths, promoting maritime knowledge, etc.
- **Rules-Based Order :** It highlights the commitment in advocating and upholding a rules-based international order.
- **Geostrategic Significance:** The conference underscores the strategic importance of the Indo-Pacific region in global geopolitics, recognizing it as a critical area for economic, security, and geopolitical considerations.
- **Climate Change and Maritime Security:** It focuses on addressing climate change threats to national and regional holistic maritime security acknowledges the intersectionality of environmental issues and maritime security, showcasing a forward-looking and holistic approach.

Conclusion

- Collaborative security and innovative partnerships for ensuring a peaceful and prosperous region syncs with India's philosophical approach of '**Vasudhaiva Kutumbakam**' (The World is One Family).

National Maritime Foundation (NMF)

- It is an Indian think tank that focuses on maritime issues.
- It was established in 2005 as a non-profit organization based in New Delhi.
- **Objective:** To conduct research and analysis on various maritime and naval security issues, with a particular emphasis on the Indian Ocean region.
- **Research and Analysis:** Engages in research and analysis related to maritime security, naval strategy, maritime governance, and other issues pertaining to the seas.
- **International Collaboration:** The NMF collaborates with other research institutions, think tanks, and organizations globally to enhance its understanding of international maritime issues and promote cooperation.

Source: PIB

AI vs Human Labour

Syllabus: GS3/Economy

In News

- Elon Musk highlighted the **disruptive potential of Artificial Intelligence (AI)** where AI would **substitute for all human labour**.
 - A future where artificial intelligence has eliminated the need for all forms of work is one where **AI has become self-aware**.

Theories of Nature of Work

- **John Maynard Keynes:** He was a **liberal thinker** who extolled capitalism

but wished to save it from its worst excesses.

- He believed that at its heart, work represented a form of drudgery, and a world in which the hours of work could be reduced was one that **unequivocally increased welfare.**
- Keynes theorised that **technological change** under capitalism would eventually **lead to a reduction of working hours.**
- **Karl Marx:** He had a more nuanced analysis. For him, the essence of humanity lies in our ability to materially manipulate nature; **work therefore provides meaning to human life.**
 - In Marx's view, the ideal state is not one where AI replaces human labour, but where **individuals can utilise AI to enjoy and elevate their work**, without it being appropriated by someone else.

The Impact of AI on the Economy

- If AI has advanced to the point that it is capable of substituting all kinds of labour it would create a world where **individuals who cannot find work cannot access basic resources.**
- It is a world with **very different institutional arrangements** regulating production and distribution, one where a **universal basic income is a major source of income and not wage labour.**

Arguments in favour of AI replacing Human Labour

- **Increased Efficiency and Productivity:** AI systems can perform tasks with high speed and accuracy, leading to increased efficiency and productivity.
- **Cost Savings:** Once the initial investment is made in developing and deploying AI systems, they can operate continuously without the need for breaks, overtime pay, or benefits.
- **Safety in Hazardous Environments:** AI can be employed in situations and environments that are hazardous to humans.
- **24/7 Operations:** AI systems can operate 24/7 without the need for rest.
- **Precision and Consistency:** AI systems can maintain a high level of precision and consistency in performing tasks.
- **Economic Growth and Innovation:** The widespread adoption of AI has the potential to drive economic growth and stimulate innovation by creating new industries and opportunities.
- **Handling Repetitive and Mundane Tasks:** AI is well-suited for handling repetitive and mundane tasks that may be monotonous for humans.
- **Data Analysis and Decision-Making:** In fields such as finance, healthcare, and business, AI systems can assist in decision-making by analyzing complex data sets and providing valuable information.
- **Customization and Personalization:** In industries like marketing and e-commerce, AI algorithms can analyze user preferences and deliver personalized experiences, leading to increased customer satisfaction and engagement.

Arguments Against AI replacing Human Labour

- **Job Displacement and Unemployment:** It could lead to unemployment for workers in industries where AI technologies are implemented, causing economic and social challenges.
- **Human Skills and Creativity:** Human workers often bring a range of skills, creativity, and emotional intelligence that AI systems currently struggle to replicate.
- **Inequality and Economic Disparities:** The benefits of AI adoption may not be distributed evenly, leading to increased economic inequality.
- **Dependency on Technology:** Overreliance on AI systems can lead to a lack of resilience in the face of system failures, cyber threats, or technical glitches.
- **Ethical and Bias Concerns:** AI systems can inherit and perpetuate biases present in their training data.
- **Loss of Traditional Skills:** With increased automation, there's a risk of losing traditional skills that may not be easily transferable to other industries.
- **Impact on Local Economies:** In certain regions heavily dependent on specific industries, the rapid adoption of AI could lead to economic downturns, affecting local communities and creating challenges in transitioning to new economic activities.

Conclusion

- The world economy will face disruptions, and it is imperative for us to fully understand the nature of these challenges.
- The impact of technological innovations cannot be seen in isolation from prevailing economic institutions.
- The goal should be to harness the advantages of AI while mitigating potential negative consequences for workers and society.
- Proactive measures, including education and workforce development, ethical guidelines, and thoughtful policy-making, can help maximize the positive impact of AI on the economy.

Source: [TH](#)

Automation and Robotics

Syllabus: GS3/Developments in Science and Technology

Context

- A number of tasks are being automated with the help of **Artificial Intelligence (AI)** and handled by a system of robots in various e-commerce companies these days.

About

- Automation and robotics are the **use of computers, control systems and information technology** to handle industrial processes and machinery.

- It replaces manual labour and **improves efficiency, speed, quality and performance.**

Advantages

Industrial automation, with robots or without, offers a range of advantages:

- **Reduced Operating Costs:** With no requirement for healthcare, paid leave, pension payments, no wages to pay, etc. industrial automation is typically cheaper than employing people.
- **Improved Productivity:** Industrial automation **allows plants to run 24 hours a day, 7 days a week** with no time loss for staff handovers or holidays, improving the productivity of the plant.
- **Improved Quality:** Industrial automation is **highly repeatable, without the errors associated with human staff.**
- **Highly Flexible:** An automated system, including robots, can be programmed to take on a different task, offering greater flexibility than with humans, who may need training on a different task.
- **Improved Data Accuracy and Collection:** Automated data collection is not just more reliable but it can also allow to improve data accuracy, offering the required facts to make decisions to reduce waste and improve processes.

Concerns

- **Initial High cost:** The primary disadvantage of automation is the **high costs associated with switching from a human to an automatic production line.**
- **Replacing humans:** Amazon claims to be the **world's largest manufacturer of industrial robots**, and it has already **deployed over 7.5 lakh robots** across its facilities globally.
 - These robots **mimic what humans do at the Amazon facility** and also offer **ergonomic assistance** to workers.
- **Health and safety:** These new robotic systems are increasingly coming under scrutiny for **health and safety concerns.**
 - Recently, the US Department of Labour proposed penalties to Amazon after safety inspectors **“found Amazon exposed warehouse workers to a high risk of low back injuries and other musculoskeletal disorders.”**

Way Ahead

- Companies need to take the injuries associated with automation seriously and **implement a company-wide strategy to protect their employees** from these preventable hazards.
- With **advanced safety systems**, robots will also be more regularly deployed to work alongside humans without potentially endangering them.

Source: [TH](#)

Road safety in India

Syllabus: Gs3/Economy and Infrastructure

News

- On November 19 the World Day of Remembrance for Road Traffic Victims was commemorated.

Background

- Road safety is a global problem, with **1.3 million** people killed in road crashes every year. But almost one in every four road deaths around the world takes place in India.
- The Government released a report that **2022 was the most fatal year** for traffic crashes in India.

Impact of road accidents in India

- **Human suffering:** According to the United Nations World Health Organization (WHO), each year, 3,00,000 people are estimated to be killed on the road in India. It is equivalent to more than 34 people every hour of every day.
- **Economic toll:** In India, road crashes are estimated to cost between **5% and 7%** of national GDP.

Focus areas for better safety

- **Use of seatbelts:** Priority areas must include enforcing the use of seatbelts not just for drivers but also for their passengers.
- **Helmet use:** It must be enforced among motorcyclists as well as their pillion passengers. Correct helmet use can lead to a 42% reduction in the risk of fatal injuries.
- **Speeding must be reduced:** Speeding causes 70% of India's road crash deaths. Also there should be no tolerance for drink-driving.
- **Road infrastructure should be enhanced:** Many roads are not in a safe condition, although government programmes in recent years have led to rapid improvements.
- **Behavioral changes:** Large-scale public awareness campaigns such as the new UN global campaign for road safety #MakeASafetyStatement, involving international celebrities, must be undertaken to secure behavioral changes.

Steps taken by Government

- Implementation of the **Motor Vehicles (Amendment) Act, 2019.**
 - The Act hike in penalties for traffic violations, electronic monitoring of the same, enhanced penalties for juvenile driving,
- **Computerization/automation** of vehicle fitness tests, recall of defective vehicles, streamlining the third party insurance and payment of increased compensation for hit and run cases etc.

Way Ahead

- Road safety is a complex and multi-dimensional challenge. There is a need to adapt international best practices and successes to India's specific needs and circumstances.
- India needs a comprehensive safe-system approach as envisaged in **the Second Decade of Action for Road Safety 2021-2030** proclaimed in UN

Resolution with a target to reduce road deaths and serious injuries by **50 per cent by the end of 2030**.

Source:[TH](#)

Facts In News

Birth Anniversary of Rani Laxmi Bai

Syllabus: GS1/ Modern Indian History, Personalities

Context

- Prime Minister Narendra Modi pays tribute to iconic freedom fighter Rani Lakshmi Bai on her **195th birth anniversary**.

About Rani Laxmi Bai

- **Early Life:**
 - Born on November 19, 1828, in Kashi, Rani Lakshmi Bai, originally named '**Manikarnika**' and affectionately known as 'Manu,' hailed from a family associated with the Peshwa Sahib of Bithur.
 - Her upbringing involved early exposure to weaponry, with guidance from **Nana Saheb and Tatyia Tope**, mastering skills such as horse riding and fencing.
- **Conflict with the British:** After the death of her husband Gangadhar Rao who was the king of Jhansi, she became the Queen of Jhansi Regime.
 - The British, under the **doctrine of Lapse**, ordered the merger of Jhansi into the British Empire and assured the queen of pension.
 - Rani Lakshmi Bai did not agree to this contract in any way.
 - During the **revolt of 1857**, She made it clear to the Britishers that she would never surrender Jhansi to them. The brave queen guarded the pride of Jhansi until her last breath.
- **Legacy:** The devotion of the queen towards the motherland, awakened the spirit of freedom among thousands of people. She inspired many women to participate in the freedom movement. She sacrificed her life for the dignity and freedom of her people.

Doctrine of Lapse

- The doctrine held that if a princely state's ruler died heirless, it would fall under British East India Company control. Though formalized by the **Governor General Lord Dalhousie(1848-1856)**, the concept

originated with the Court of Directors in 1847. Several states were annexed accordingly before Dalhousie's declaration.

- **Annexed Areas:** Satara (1848), Sambalpur (1850), Udaipur (1852), Nagpur (1853) and Jhansi (1854). Finally, in 1856, the Company also took over Awadh.

Source: PIB

Chhath Puja

Syllabus: GS1/ Culture

Context

- Recently Chhath Puja is celebrated in Northern India.

About

- Chhath has been celebrated in Bihar, parts of eastern Uttar Pradesh and Nepal for centuries.
- Devotees observe a strict fast, **offering prayers to Usha and Pratyusha**(the light of the rising and the setting Sun) in water bodies.
- Origin tied to Lord Ram and Goddess Sita's post-victory rituals.
- Symbolizes religiosity and holds a special place in Bihari culture.
- Chhathi maiyya, the Sun's sister, is the revered deity with strict rituals.

Cultural and Social Importance

- The festival promotes community unity, welcoming Bihari migrants.
- No caste restrictions or involvement of priests, emphasizing equality.
- Men and women, regardless of wealth, follow identical rules.
- Chhath underscores reverence for nature and the cyclical nature of life, making it a unique and cherished celebration.

Source: **IE**

Indira Gandhi Peace Prize

Syllabus: Miscellaneous/ Awards

In Context

- The **Indian Medical Association and the Trained Nurses Association of India** were jointly awarded the Indira Gandhi Prize for Peace, Disarmament, and Development 2022.

Indira Gandhi Prize for Peace, Disarmament, and Development

- It was established in 1986 by the **Indira Gandhi Memorial Trust** in her honor and as a tribute to the former prime minister's memory.
- It consists of a monetary award of Rs 25 lakh along with a citation.
- The primary objective of the prize is to recognize and honor individuals or organizations that have made outstanding contributions to the causes of peace, disarmament, and development.

Indian Medical Association (IMA)

- It was established in 1928, in Madras (now Chennai) during the 22nd annual conference of the Indian Medical Congress.

- The primary mission of the IMA is to promote the science and art of medicine and the betterment of public health.

Trained Nurses Association of India (TNAI)

- It was founded in 1908, in the city of Lucknow, Uttar Pradesh, during the first All India Nurses' Conference. Lady Willingdon, the then Viceroy's wife, inaugurated the association.
- It aims to maintain the highest standards of nursing practice, education, and research.

Source: [The Hindu](#)

Onattukara Sesame

Syllabus: GS3/ Economy, Agriculture

Context

- Efforts are being made to enhance **Onattukara Sesame cultivation**.

About

- Onattukara Sesame refers to a specific variety of **sesame seeds cultivated** in the Onattukara region of Kerala.
- Received Geographical Indication (GI) tag due to its unique characteristics, taste, and quality which are attributed to the specific geographical location and traditional cultivation practices of the Onattukara region.
- **Nutritional benefits:** It contains high levels of Vitamin E, antioxidants, oleic acid, linoleic acid, palmitoleic acid, contributing to overall health.

GI Tag

- GI tags are primarily governed by the **Geographical Indications of Goods (Registration and Protection) Act, 1999**.
- The Act defines a geographical indication as an indication that identifies goods as originating from a particular territory, region, or locality where a given quality, reputation, or other characteristic of the goods is essentially attributable to its geographical origin.
- GI tags are used to protect the intellectual property rights of unique and traditional products associated with a particular region.

Source: [TH](#)

Chimaeras

Syllabus: GS3/Science and Technology

News

- In a recent landmark study, scientists reported successfully generating a live infant chimeric monkey of the species Long-tailed macaques.

What are Chimaeras?

- A genetic Chimaera is a single organism composed of cells of more than one distinct genotype (or genetic makeup).

chimerism in the Animal Kingdom

- **The half-sider budgerigar:** A type of common parakeet widely adopted as pets, has different colors on either side of its body due to chimerism.
- **Anglerfish:** The male fish fuses with and is eventually absorbed into the female fish, mixing their genetic makeups into a single animal.
- **Marine sponges:** They have four distinct genotypes in a single organism.

Natural chimaeras among humans

- It occurs when the genetic material in one cell changes and gives rise to a clonal population of cells different from all the other cells.
- **The fusion of two fertilized zygotes** early in the embryonic stage can also lead to a condition in which two genetic makeups coexist in a single individual.
- Chimerism can also result from **twin or multiple pregnancies** evolving into a single fetus or a twin fetus being absorbed into a singleton.
- **There is a phenomenon called microchimerism**, in which traces of the fetus's genetic material are observed in mothers' tissues many years after childbirth, resulting in two different genetic materials in a single person.
- **Solid organ transplants** in humans are bound to produce individuals with two unique genetic makeups as well. The makeup of the donor's organs will be significantly different from that of the recipient's other tissues, also resulting in chimerism.

Long-tailed macaques

- **Scientific Name:** Macaca Fascicularis
- **Habitat and Distribution:** It is widely distributed across South and SouthEast Asia. In India it is found on **Nicobar Islands** which include **Little Nicobar, Great Nicobar and Katchall Islands**.
- **IUCN status:** Endangered

Source: [TH](#)

Freemartins

Syllabus: GS3/ Science & Technology

Context

- While classifying the sexes, biological variations have been recorded in both humans and animals.

About

- In animal husbandry, **cattle that are born exhibiting characteristics of both sexes are called freemartins**.
- **Freemartins are sterile female cattle** that result from the twinning of a male and a female within the same uterus.

- This phenomenon **occurs in approximately 90% of such twin pregnancies in cattle.**

Reason behind the phenomenon

- The key reason is the **exchange of blood** between the male and the female foetuses during gestation.
- Genetically, freemartinism is attributed to the **sharing of cells carrying the Y chromosome** from the male twin with the female twin.
- This chromosome triggers the development of male reproductive organs in the male foetus, while the **female foetus, affected by the presence of male hormones**, experiences incomplete development of its reproductive system.
- The end result is that the freemartin has an **underdeveloped or non-functional reproductive tract.**

Implication

- In agricultural settings, **because freemartins can't reproduce**, farmers often identify them through physical and/or behavioural traits and **cut them from the breeding herd to improve reproductive efficiency.**

Source: [TH](#)

Zaglossus attenboroughi

Syllabus: GS 3/Species in news

Context

- An elusive echidna feared extinct after disappearing for six decades has been rediscovered in a remote part of Indonesia



About Zaglossus attenboroughi

- It is a kind of long-beaked **echidna** named for famed British naturalist **David Attenborough.**
 - Echidnas are nocturnal and shy, making them difficult to find at the best of times.
 - It had last been seen in 1961.

- It is a member of the monotremes -- an egg-laying group that separated from the rest of the mammal .
- **Habitat and Distribution:** It is found in tropical montane forest, probably from lowland to montane elevations.
 - It lives in Cyclops Mountains in extreme northern Papua Province, Indonesia
- They are the last vestiges of an ancient animal line.
- **Protection status : IUCN Red List status :** Listed as Critically Endangered
 - listed on Appendix II of CITES.

Jaguars

Syllabus :GS 3/Species in news

In News

- Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) have come together to combat the illegal trade of jaguar parts

About Jaguars (Panthera onca)

- They are mighty cats most easily recognized by the bold rosettes generously spotted across their tawny-colored coats.
- It is the **third biggest cat in the world** - after the tiger and the lion - and is the **largest cat in the Americas.**
- Unlike many domestic cats, jaguars don't avoid water. They have adapted to living in wet environments, and can be found swimming in lakes, rivers and wetlands.
 - They are confident swimmers, known to cross large rivers.
- Jaguars are nocturnal as well as diurnal big cats.
- **Habitat and Distribution:** They are distributed from Mexico to Argentina across 18 countries, and Brazil holds around half of the wild jaguars in the world.
 - Their habitats include wet and dry forests, savannahs, and shrublands.
- **Protection status :** IUCN Red list status : listed as **Near Threatened**
 - Included on CITES Appendix I



Pancorius sebastiani

Syllabus: GS 3/Species in news

In News

- A new species of jumping spiders has been discovered from the Shendurney Wildlife Sanctuary.



About Pancorius sebastiani

- It belongs to the jumping spider genus *Pancorius* Simon and Salticidae family
- It is named after the late spider taxonomist P.A. Sebastian in recognition of his valuable contributions towards Indian arachnology.
- **Features:** The males and the females of *Pancorius sebastiani* exhibit reddish brown carapace, yellowish abdomen with black patches and chevron-shaped markings posteromedially.
- **Habitat and Distribution:** The *Pancorius* genus of Asian jumping spiders is primarily distributed in southeast Asia.
 - Its distribution until now was limited to the east and northeastern regions in India, the new species is the first to be reported from the south.

Source: TH

Namita Chattopadhyay Sahitya Samman 2023

Syllabus: Miscellaneous

In News

- **Nadibir Notebook ('notebook on rivers')** a book in Bengali by writer and river scientist Supratim Karmakar, was honoured with the **Namita Chattopadhyay Sahitya Samman 2023**.

About

- The book deals with issues **concerning the rivers of India**, their ecology, and the steps that can be taken for their rejuvenation.
 - There are references to rivers like Ganga, Churni, Teesta and also to some rivers that have been lost.
- This was the **first time a non-fiction book** had been honoured with the literary award.
- Mr. Karmakar's famous works include **Jalanagi Paarer Britanto** ('Stories on the bank of Jalangi'), published in 2018, and **Jagadhatri Utsa Sandhane** ('In search of the origins of Goddess Jagadhatri'), published in 2021.

Source: [TH](#)