



DAILY CURRENT AFFAIRS 27-11-2024

GS-1

1. Sabarmati River

GS-2

2. All-India Services (Conduct) Rules, 1968

GS-3

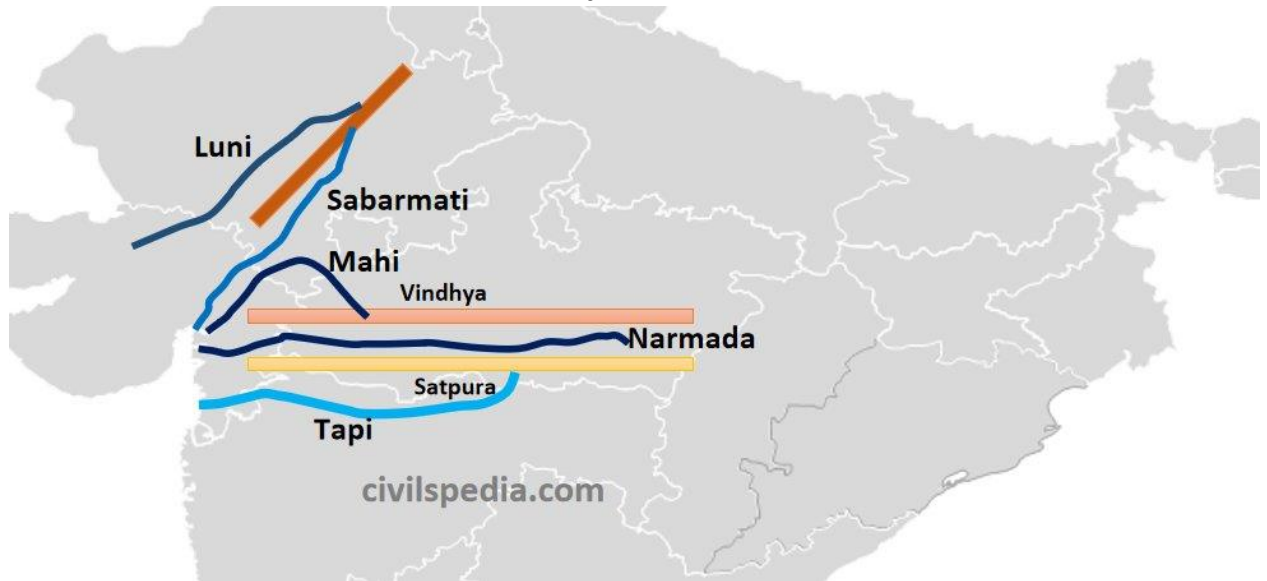
3. Intellectual Property Rights
4. Lipids
5. Raorchestes asakgrensis

Sabarmati River

Syllabus: GS-1; Geography- Rivers of India

Context

- 1) Sabarmati riverfront kicks off ₹4,000 cr land monetisation plan with first auction.
- 2) Ahmedabad introduces INR 25 Crore luxury river Cruise to boost tourism.



Geography and Location

- The Sabarmati is a **river in western India** that originates from the **Aravalli Range** in Rajasthan, near the town of **Udaipur**.
- It flows in a **southward direction** through the states of Rajasthan and Gujarat before emptying into the **Gulf of Khambhat** (also known as the Gulf of Cambay) in the Arabian Sea.
- The river has a total length of about **371 kilometers** and drains an area of approximately **22,000 square kilometers**.

Course of the River

- The river first flows south through Rajasthan and enters Gujarat near **Dholka**.
- It passes through **Ahmedabad**, the largest city in Gujarat, and is a key water source for the region.
- Along its course, the Sabarmati is joined by several tributaries, including the **Watrak**, **Hathmati**, and **Kankavati** rivers.

Importance

- **Cultural and Historical Significance:** The Sabarmati River is historically significant due to its association with **Mahatma Gandhi**. The riverfront area in **Ahmedabad** became the focal point for the **Salt March** (Dandi March) in 1930, a pivotal event in India's freedom struggle against British rule.
- **Water Resource:** The river provides water for irrigation and drinking purposes to many areas along its course. It is particularly important for the city of **Ahmedabad**.
- **Economic Activities:** It has supported the development of agriculture and industry in the region.

Environmental Issues

- The Sabarmati is facing several environmental challenges, including **pollution**, **reduced water flow**, and the **encroachment** of its floodplains for urban development.
- The river, especially in **Ahmedabad**, has suffered from **industrial waste** and untreated sewage being discharged into it.
- **Water scarcity** and declining groundwater levels also affect the river's health.

Riverfront Development

- In recent years, the **Sabarmati Riverfront Development Project** has been initiated in **Ahmedabad** to rejuvenate the river and its surroundings. The project includes the construction of parks, walking paths, and other public spaces along the river.
- This initiative aims to improve the quality of water, provide recreational spaces, and reduce the environmental impact on the river.

Tributaries

- Some of the significant tributaries of the Sabarmati River include:
 - **Watrak River**
 - **Hathmati River**
 - **Kankavati River**
 - **Mahi River** (enters the Sabarmati through the Mahi Canal)

Economic and Strategic Importance

- The river plays a significant role in supporting agriculture in the regions it traverses, especially in Gujarat.

- It also has strategic importance, as it forms part of the water distribution network in the region, aiding both domestic consumption and industrial use.

Water Quality and Conservation Efforts

- The **Sabarmati Action Plan** is an ongoing initiative aimed at improving water quality and addressing pollution in the river.
- Various steps have been taken to treat wastewater and prevent further contamination.

Role in India's Freedom Struggle

- The Sabarmati Ashram, located on its banks in Ahmedabad, is closely associated with **Mahatma Gandhi** and the Indian independence movement.
- It was from this location that Gandhi led several important movements, including the **Salt March**, which began on **March 12, 1930**, from Sabarmati Ashram to the coastal village of **Dandi**.

All-India Services (Conduct) Rules, 1968

Syllabus: GS-2; Governance

Context

- Kerala police to investigate K Gopalakrishnan IAS over controversial WhatsApp groups.

About

- The **All-India Services (Conduct) Rules, 1968** were framed under Article 309 of the Constitution of India to regulate the conduct and discipline of members of the All-India Services (AIS) such as the Indian Administrative Service (IAS), Indian Police Service (IPS), and Indian Forest Service (IFS).
- These rules provide a framework to ensure that members of the AIS adhere to ethical and moral standards, perform their duties impartially, and maintain the integrity of public service.

Scope and Applicability

- The rules apply to all members of the All-India Services (IAS, IPS, IFS) regardless of their posting, whether in the Union or State Governments.
- They are applicable from the time a person joins the services, continuing throughout their tenure.

General Conduct

- **Impartiality and Integrity:** Members must act impartially and avoid discrimination based on caste, religion, or political affiliation.
- **Political Activity:**
 - Civil servants are prohibited from engaging in active politics or contesting elections. They must maintain political neutrality.
 - However, they may vote in elections if they do not act in a way that affects their official duties.
- **Relations with the Public:** They are required to treat the public with respect and courtesy and avoid behavior that may cause public grievances.

Prohibited Activities

- **Corruption and Misuse of Power:** No member of the AIS should engage in corrupt practices, misuse their position, or accept bribes.
- **Conflict of Interest:** Civil servants should avoid situations where personal interests could conflict with official duties.
- **Discrimination:** They must not discriminate on the grounds of caste, religion, sex, or place of birth in their work.

Prohibition on Acceptance of Gifts

- Civil servants are prohibited from accepting gifts, rewards, or other benefits from private individuals, corporations, or organizations that could compromise their impartiality.
- There are certain exceptions, such as gifts given on ceremonial occasions.

Outside Employment and Business

- **Prohibition on Outside Employment:** AIS members are not permitted to engage in any form of employment outside their official duties without prior permission.
- **Business Interests:** They cannot run a business or indulge in activities that could lead to conflicts of interest.

Disclosure of Assets and Liabilities

- Members of the AIS must submit declarations about their assets and liabilities, which can be scrutinized to detect any unexplained accumulation of wealth.

Disciplinary Proceedings

- If a member of the AIS violates the rules, disciplinary proceedings may be initiated, leading to penalties such as censure, suspension, reduction in rank, or even dismissal from service.

Integrity in Official Work

- Civil servants are expected to carry out their duties with diligence, impartiality, and integrity.
- They should avoid acts that could harm public trust in the government.

Restrictions on the Use of Official Position

- Members are prohibited from using their official position for personal gain or to influence others inappropriately.
- They are also prohibited from using government resources or facilities for private purposes.

Freedom of Speech

- Members of the AIS must maintain discretion in their speech and writing, especially in public forums.
- Criticism of government policies in a way that undermines public trust or affects national security is not allowed.

Health and Lifestyle

- Civil servants are expected to maintain a healthy lifestyle that reflects their duties as role models for the public.
- This includes prohibiting activities that could harm their health, such as excessive drinking, smoking, or indulgence in immoral behavior.

Involvement in Criminal Activities

- If a member of the AIS is found guilty of criminal conduct, they are subject to legal proceedings and disciplinary actions under these rules.

Implementation and Oversight

- The rules are enforced by the Union Government and the respective State Governments.
- **The Central Vigilance Commission (CVC)** also plays a role in overseeing the conduct of AIS officers, especially in cases of corruption or misconduct.

Key Amendments and Updates

- Over time, there have been amendments to the original rules to address emerging issues and concerns, such as the prevention of sexual harassment, prohibition of certain forms of misconduct, and updates on the acceptance of gifts and assets.

Conclusion

- The **All-India Services (Conduct) Rules, 1968** ensure that members of the AIS perform their duties with integrity and fairness, thereby maintaining public trust in the government.
- These rules are an important part of the ethical framework that governs civil services in India and play a crucial role in the functioning of the administrative machinery.

Intellectual Property Rights

Syllabus: GS-3; World Intellectual Property Organization's (WIPO), Patent Criteria in India, National IPR Policy, TRIPS

Context

- The news agency ANI has sued OpenAI for using its “original news content” in an unauthorised manner, possibly becoming the first Indian publisher to drag an AI company to court for violating its intellectual property rights.

Definition of Intellectual Property (IP)

- **Intellectual Property (IP)** refers to creations of the mind such as inventions, literary and artistic works, designs, symbols, names, and images used in commerce.

IP laws grant exclusive rights to creators, innovators, and owners over their creations.

Types of Intellectual Property

- **Patents:** Protection for new inventions or innovations, granting the inventor exclusive rights to produce, use, or sell the invention for a specified period (usually 20 years).
- **Trademarks:** Protection for distinctive signs, symbols, words, or other identifiers used in commerce to distinguish goods and services.
- **Copyright:** Protection for original literary, artistic, musical, and dramatic works, giving the author exclusive rights to reproduce, distribute, and perform their work.
- **Designs:** Protection for the visual design of objects (such as shapes, patterns, and configurations) that are new and original.
- **Geographical Indications (GI):** Protection for goods that have a specific geographical origin and possess qualities or a reputation due to that origin (e.g., Darjeeling tea, Basmati rice).
- **Trade Secrets:** Protection for confidential business information or know-how that gives a competitive edge.
- **Plant Varieties and Farmers' Rights:** Protection for the new plant varieties developed by breeders and the rights of farmers to conserve and use plant varieties.

International Agreements and Conventions

- **TRIPS (Trade-Related Aspects of Intellectual Property Rights):** An international agreement under the World Trade Organization (WTO) that sets minimum standards for IP regulation across member countries.
- **Paris Convention (1883):** An international treaty for the protection of industrial property, ensuring equal protection for foreign nationals.
- **Berne Convention (1886):** An international agreement for the protection of literary and artistic works.
- **WIPO (World Intellectual Property Organization):** A specialized agency of the United Nations responsible for the promotion and protection of IP worldwide.

IPR in India

- **Indian Patents Act, 1970:** Governs the patent system in India, providing the process for granting patents and setting conditions for protection.
- **The Copyright Act, 1957:** Governs the protection of literary, dramatic, musical, and artistic works.

- **The Trade Marks Act, 1999:** Deals with the registration and protection of trademarks in India.
- **The Designs Act, 2000:** Provides for the registration and protection of industrial designs.
- **Geographical Indications of Goods (Registration and Protection) Act, 1999:** Provides legal protection to goods associated with specific geographical locations.
- **Protection of Plant Varieties and Farmers' Rights Act, 2001:** Provides protection to plant varieties and ensures the rights of farmers to conserve and use plant genetic resources.

IPR Enforcement

- **Indian IP Office:** Administers the registration of patents, trademarks, designs, and geographical indications.
- **IPR Enforcement:** Enforcement mechanisms include civil suits, criminal cases, border control measures, and anti-counterfeiting efforts to prevent IP infringement.

Challenges in IPR

- **Piracy and Counterfeiting:** Widespread infringement of copyrights and trademarks, particularly in the digital environment.
- **Traditional Knowledge and Bio-piracy:** The use of indigenous knowledge and biodiversity without consent from the community or country of origin.
- **Access to Medicines:** Balancing patent protection with the need for affordable medicines, particularly in developing countries.

India's Position on IPR

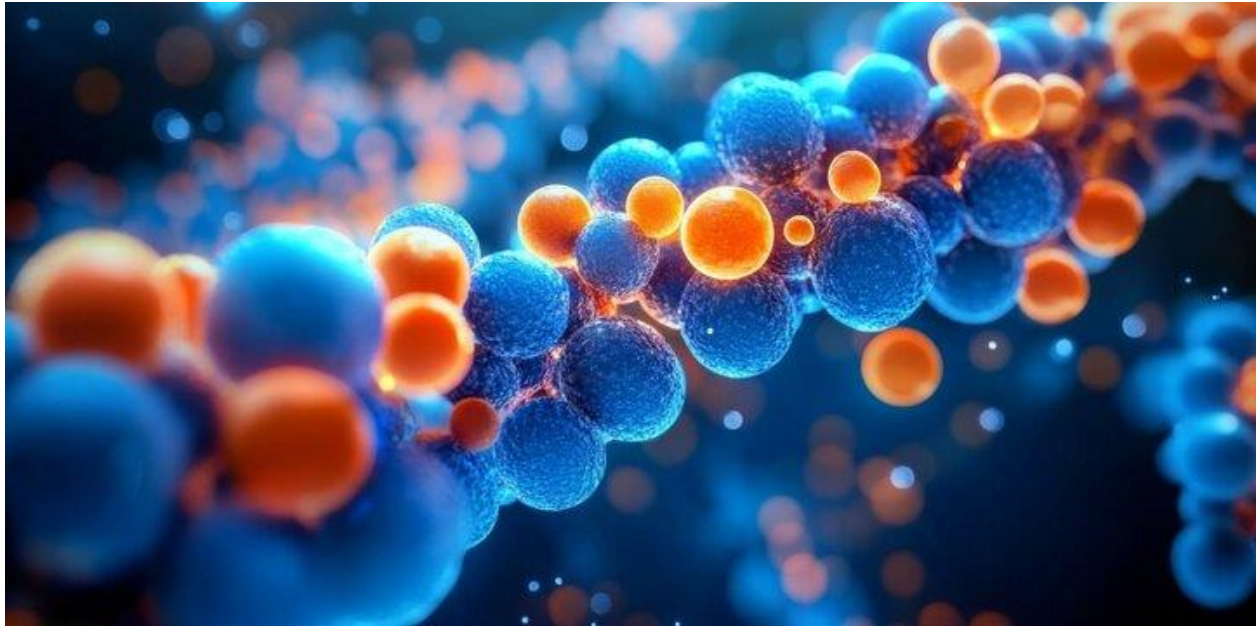
- India has been a proponent of strong IPR protection, especially in the context of pharmaceuticals, but also strives to balance the interests of the global economy and public welfare.
- India is signatory to the **TRIPS Agreement** and adheres to international norms, but it has used flexibilities under TRIPS to promote access to affordable medicines and knowledge.

Lipids

Syllabus: GS-3; Science & Technology

Context

- Innovating LNP design to improve mRNA therapeutics.



About

- Lipids are organic molecules that are insoluble in water but soluble in non-polar solvents such as alcohol, ether, or benzene.
- They play crucial roles in energy storage, cellular structure, and signaling.

Types of Lipids

- **Simple Lipids:**
 - **Fats and Oils:** Composed of glycerol and fatty acids (triglycerides).
 - **Waxes:** Long-chain fatty acids and alcohols, e.g., beeswax.
- **Complex Lipids:**
 - **Phospholipids:** Contain phosphate groups (e.g., lecithin in cell membranes).
 - **Glycolipids:** Contain carbohydrate groups; important in cell recognition.
 - **Lipoproteins:** Lipid-protein complexes for transport (e.g., LDL, HDL).
- **Derived Lipids:**
 - Substances derived from simple and complex lipids (e.g., steroids like cholesterol, fat-soluble vitamins like A, D, E, K).

Functions of Lipids

- **Energy Storage:**
 - Provide 9 kcal/gram of energy, a dense source compared to carbohydrates and proteins.
 - Stored in adipose tissue as triglycerides.
- **Structural Role:**
 - Major components of cell membranes (phospholipid bilayer and cholesterol).
- **Insulation and Protection:**
 - Subcutaneous fat insulates against cold.
 - Fat cushions and protects internal organs.
- **Signaling Molecules:**
 - Serve as precursors for hormones like steroid hormones and prostaglandins.
 - Role in cellular signaling and immune response.
- **Transport of Fat-Soluble Vitamins:**
 - Essential for absorption and transport of vitamins A, D, E, and K.

Importance in Human Health

- **Positive Roles:**
 - Omega-3 and Omega-6 fatty acids support brain function, cardiovascular health, and reduce inflammation.
 - Cholesterol is a precursor for vitamin D and steroid hormones.
- **Negative Impacts of Excess Lipids:**
 - High levels of LDL cholesterol can lead to atherosclerosis and cardiovascular diseases.
 - Obesity is linked to excessive fat intake.

Sources of Lipids

- **Animal Sources:**
 - Butter, ghee, lard, and fatty fish.
- **Plant Sources:**
 - Olive oil, nuts, seeds, and avocados.

Relevance in Biotechnology and Agriculture

- **Biofuels:**
 - Lipids from microalgae and other sources are used in biodiesel production.
- **Genetically Modified Crops:**
 - Crops like soybean and canola are modified for higher oil yield.

Environmental Significance

- **Lipid Biodegradation:**

- Microorganisms break down lipids in the environment, aiding in waste management.
- **Marine Ecosystems:**
 - Marine organisms use lipids for buoyancy and energy storage.

Raorchestes asakgrensis

Syllabus: GS-3; Biodiversity

Context

In a recent study, scientists from SACON have identified a new frog species in Meghalaya, named 'Raorchestes asakgrensis'.



About

- **Raorchestes asakgrensis** is a newly discovered frog species found in the Garo Hills of Meghalaya, India.

- It was identified by a team of scientists from the **Sálim Ali Centre for Ornithology and Natural History (SACON)** during a two-year study from October 2020 to January 2022. The discovery was published in the journal *Herpetozoa* on November 18, 2024.

Key Details About *Raorchestes asakgrensis*:

- **Location:** The species was discovered in the Garo Hills, part of the broader Khasi and Garo Hills regions in Meghalaya, India. The species was named after the **Eman Asakgre Community Reserve**, which reflects the local support provided by the Asakgre community during the research.
- **Discovery Process:** The research team conducted nocturnal surveys, focusing on bush frogs that are most active and vocal at night. The frogs were captured, photographed, and studied to describe the new species in detail.
- **Physical Description:** Like other members of the genus *Raorchestes*, this species exhibits typical characteristics of bush frogs, though detailed morphological descriptions are still being analyzed.
- **Conservation Importance:** The discovery highlights the rich biodiversity of the Garo and Khasi Hills, a region that remains under-explored. The finding also underscores the need for continuous documentation of species, particularly in biodiversity-rich regions like North East India.

The species' naming, *Raorchestes asakgrensis*, is a tribute to the local community and their vital role in the study, reflecting the increasing recognition of indigenous contributions to scientific research.

Rediscovery of Other Species

- Alongside *Raorchestes asakgrensis*, the team also rediscovered two other frog species, *Ixalus garo* and *Ixalus kempiae*, originally described in the early 20th century.
- These species had been poorly documented in the past and lacked critical information such as photographs, genetic material, and specific morphological traits.
- This made their identification difficult, and the recent rediscovery offers a clearer understanding of these species, which could aid in their conservation.

Significance

- This discovery contributes to the growing body of knowledge on the biodiversity of North East India and emphasizes the importance of collaborative research efforts, involving both local communities and scientists, to uncover and conserve the region's unique species.