UPSC Daily Current Affairs| Prelim Bits 24-01-2025

Physico chemical pollutants in Arkavathi River

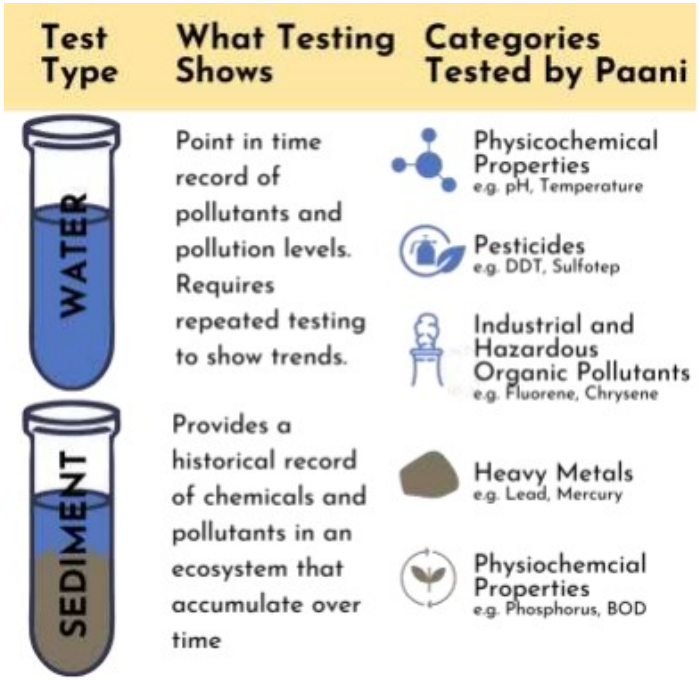
Why in News?

A report conducted by Paani.Earth in collaboration with the International Centre for Clean Water on pollution levels in the Arkavati has revealed alarming levels of physicochemical pollutants.

- **Report Findings –** The study quantifies the risks of emerging pollutants from seven sites along the Arkavathi and its tributary, the Vrishabhavathi River.
- Pollution levels in the Arkavati has revealed alarming levels of physicochemical pollutants, pesticides, heavy metals, and hazardous organic compounds.

  The Central Pollution Control Board's Water Quality Criteria focus only on physicochemical properties of water rather than hazardous pollutants.

- The analysis focused on
  - 3 categories for water (Physicochemical Properties, Pesticides, and Industrial and Hazardous Organic Pollutants) and
  - 2 categories for sediment (Heavy Metals, and Physicochemical Properties).



- It exceeds both Indian and international standards and guidelines.
- **Notable High pollutants** - **Pesticides** - Harmful substances with health impacts such

as ***Heptachlor and DDT*** found at levels as high as 25022 times US guidelines.
- **Heavy Metals** - Toxins such as ***Mercury*** found in sediment at levels up to 26 times above Canada's Sediment Quality Guidelines.
- **Industrial Pollutants** - ***Polycyclic aromatic hydrocarbons (PAHs)*** from industrial burning such as Dibenz[a,h]anthracene found at 3076 times US guidelines.
- **Nutrients** - Excessive ***phosphorus*** levels causing eutrophic conditions at all sites.
- **Health concerns** – It can cause severe risks to human and aquatic health, including cancer and hormone disruptions.
- Heavy metals also contribute to the development of antimicrobial resistance (AMR), posing an additional threat to public health and the environment.

References

1. The Hindu | Physicochemical pollutants in Arkavati
2. Paani.earth | Hidden Pollution in the Arkavathi

Blue Carbon

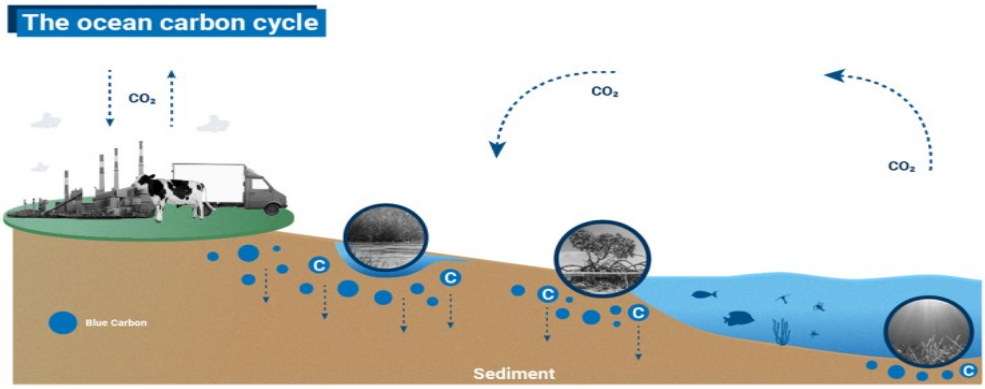
Why in News?

Current studies suggest that mangroves and coastal wetlands annually sequester carbon at a rate 10 times and store three to five times more carbon per equivalent area greater than tropical forests.

- Blue carbon is the term for carbon captured by the ***world's ocean and coastal ecosystems.***
- The world's mangroves, sea grasses and salt marshes together comprise 'blue carbon ecosystems.' They are nature's most effective carbon sinks.

  Mangroves alone have the capacity to store more than 1,000 tons of carbon per hectare.

- It can be found on every continent ***except Antarctica*** and cover approximately 50 million hectares.
- Coastal ecosystems ***sequester and store more carbon*** per unit area than terrestrial forests and are now being recognized for their role in mitigating climate change.
- These ecosystems also provide essential benefits for climate change adaptation, including coastal protection and food security for many coastal communities.
- However, if the ecosystems are degraded or damaged, their carbon sink capacity is lost or adversely affected.
- The resultant carbon stored is released, resulting in carbon dioxide (CO_2) emissions that contribute to climate change.
- Dedicated conservation efforts can ensure that coastal ecosystems continue to play their role as long-term carbon sinks.



- **IUCN involvement –** IUCN is involved in Blue Carbon initiatives through 2 main funding mechanisms
    - The Blue Natural Capital Financing Facility (BNCFF) and
    - The Blue Carbon Accelerator Fund (BCAF).

Reference

Down to Earth | Blue Carbon

Ratnagiri Buddhist Site

Why in News?

Archaeological Survey of India have recently unearthed a colossal Buddha head, a massive palm, an ancient wall and inscribed Buddhist relics, all of which are estimated to date back 8th and 9th Century AD.

- **Location -** The Ratnagiri Buddhist site, located in the Ratnagiri district of ***Odisha.***
- **Period** - It is an archaeological site that dates back to the 4th-6th centuries CE.
- It is part of the famous ***Diamond Triangle*** of Odisha along with Udaygiri and Lalitgiri, Ratnagiri, translated as the 'Hills of Jewels' was first documented as a historical site in 1905.
- **Rivers** - The site stands on a hill between Birupa and Brahmani rivers.
- **Features** - It features ancient rock-cut caves, stupas, and monastic complexes, showcasing the Buddhist monasticism and art.
- **Origin of sects** - Mahayana and Tantrayana (also known as Vajrayana that involves mystical practices and concepts) sects of Buddhism originated.
- **Associated Travelers -** Chinese Buddhist monk and traveller, ***Hiuen Tsang***, who visited Odisha, during 638-639 AD, might have visited Ratnagiri.
- The new excavations would shed light about the lifestyle, culture, religion, art and architecture at different times.

The links of Buddhism in Ratnagiri and Southeast Asia

- Odisha has long enjoyed maritime and trade links with Southeast Asian countries.
- **Items of Trade -** Pepper, cinnamon, cardamom, silk, camphor, gold, and jewellery were popular items of trade between the ancient kingdom of Kalinga and Southeast

Asia.

- **Baliyatra** - The state also annually holds Baliyatra, literally 'voyage to Bali'.
- It is a 7-day festival to commemorate the maritime and cultural links between Kalinga and Bali and Southeast Asian regions such as Java, Sumatra, Borneo, Burma (Myanmar) and Ceylon (Sri Lanka).
- Experts believe that ***Tapassu and Bhallika,*** the two merchant brothers who became the first disciples of Lord Buddha, having their origins from Utkala, another ancient name of Odisha.
- **Mauryan Emperor Ashoka** (304-232 BCE), whose invasion of the kingdom of Kalinga in 261, the ancient name for Odisha led to him embracing the religion.
- Buddhism is stated to have particularly flourished under the ***Bhaumakara dynasty***, which ruled parts of the state in between the 8th and 10th Century.

Reference

The Indian Express | ASI excavation in Ratnagiri

National Girl Child Day

Why in News?

The National Girl Child Day was celebrated every year on January 24.

- It is an opportunity to *raise awareness about the rights of girls* and ensure they are provided with equal opportunities and support, free from gender biases.
- **Nodal Ministry** – Ministry of Women and Child Development.
- **Focus on** – Changing societal attitudes towards girls.
    - Addressing issues like female foeticide.
    - Raising awareness about the declining sex ratio and fostering a more inclusive.
    - Equitable environment for the girl child.

Initiatives for Girl Child Development
Beti Bachao Beti Padhao (BBBP)
• **Launched in** – 2015. • **Aim** – To address declining Child Sex Ratio (CSR) and related issues of empowerment of girls & women over a life cycle continuum.
UDAAN – A program to give wings to girl students
• **Launched in** – 2014. • **Aim** – At addressing the low enrollment of girl students in prestigious engineering institutions and bridging the gap between school education & engineering entrance examinations.
Scheme for Adolescent Girls (SAG)
• **Launched in** – 2010. • **Aim** – At providing nutritional support to out of school girls in the age group of 11-14 years for improving their health and nutritional status.
National Scheme of Incentives to Girls for Secondary Education

• **Launched in** – 2008. • **Aim** – To enhance educational opportunities for girls, particularly those from Scheduled Caste (SC) and Scheduled Tribe (ST) communities. • Now integrated into the National Scholarship Portal (NSP).
Scheme for Promotion of Menstrual Hygiene among Adolescent Girls in Rural India
• **Launched in** – 2011. • **Aim** – Enhancing menstrual hygiene practices for girls aged 10-19 in rural areas.
Sukanya Samriddhi Scheme
• **Launched in** – 2015. • **Part of** – Beti Bachao, Beti Padhao campaign. • It encourages parents to build a fund for the future education and marriage expenses for their female child.
Child Protection Services Scheme
• **Launched in** – 2009-10. • **Aim** – At building a protective environment for children in difficult circumstances.
POSHAN Abhiyaan
• **Launched in** – 2018. • **Aim** – To address malnutrition issues across the nation through components like Information and Communications Technology (ICT) Application.

- **Legal measures** – To empower and protect the girl child includes,
- Prohibition of Child Marriage Act, 2006.
- Protection of Children from Sexual Offences (POCSO) Act, 2012.
- Juvenile Justice Act, 2015.
- Child Helpline and Track Child Portal.
- PM CARES for Children Scheme.

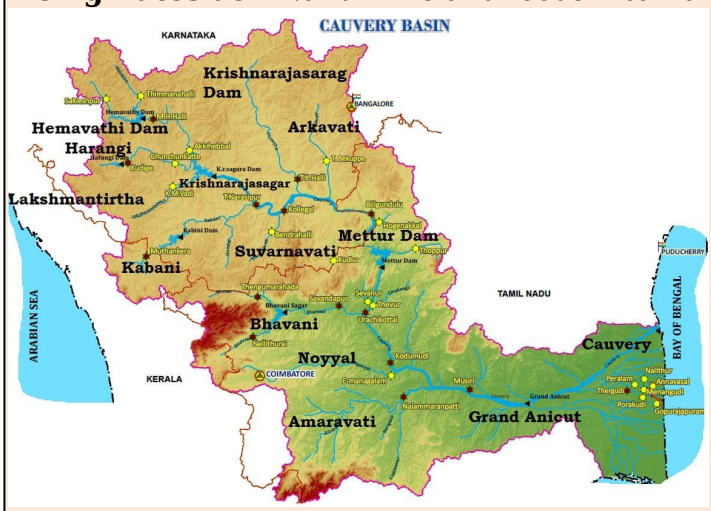
Reference

PIB| National Girl Child Day 2025

One Liners 24-01-2025
Geography

Arkavathi River

• **Location** – Mountain River in *Karnataka.*
• **Tributary of** – Kaveri River.
• **Originates at** – Nandi hills and feeds into Kaveri.



• **3 tributaries** – Kumudavathi River, Suvarnamukhi River, and Vrishabhavathi River.
• Half of the river is *critically polluted*, as per the Central Pollution Control Board (CPCB).

Polity & Governance

27th National Conference on Good Governance

• **Organized by** – Department of Administrative Reforms and Public Grievances (DARPG).
• **Vision** – Maximum Governance – Minimum Government.
• It is to be held in *Gandhinagar, Gujarat*.
• **Objective** – To bring national and state level public administration organizations on *a single platform to share experiences* in,
- Innovations in public administration
- Future public solutions for improving quality of life
- Good governance
- E-governance
- Digital governance, etc.

Radar Equipment for the Measurement of Speed of Vehicles

• **Under** – Legal Metrology (General) Rules, 2011.
• **Nodal Ministry** – Ministry of Consumer Affairs, Food & Public Distribution.
• **Effect from** – July 1st, 2025.
• **Purposes** – It provides that all equipment's shall be *verified and stamped* to ensure their correctness for the protection of human beings in accidents, wear & tear of roads etc.
• It will ensure *precise measurement* of speed, distance, and other relevant parameters.

Members of Parliament Local Area Development Scheme (MPLADS)

• **Launched in** – 1993.
• **Launched by** – P.V. Narasimha Rao, Prime Minister of India (1991-1996).
• **Nodal Ministry** – Ministry of Statistics & Programme Implementation.
• **Objective** - To provide *funds to MPs* to facilitate developmental works in their constituencies.
• **Fund** – It is a Central Sector Scheme where Each MP has the choice to suggest to the District Collector works to the tune of *Rs.5 Crores per annum.*

National Anubhav Awards Scheme

• **Launched in** – 2015.
• **Launched by** – Department of Pension &Pensioners' Welfare, through an *online platform 'Anubhav'*.
• It is a scheme for *retiring/retired employees* to showcase their significant achievements made during service period.
• **Aim** – To recognize the contribution of eligible Government employees.
• **Eligibility** – Employees of Central Government.
- **Central Public Sector Undertakings (CPSUs)** – Public Sector Banks who are *going to retire in next 8 months* or who have *retired within 3 years.*

2nd Edition of Lok Samvardhan Parv

• **Part of** – 100 days' program for showcased various schemes, programs and achievements of the Ministry.
• **Nodal Ministry** – Ministry of Minority Affairs.
• **Concept** – It was a *platform to popularize the schemes* and achievements of the Ministry.
• **Feature** – To highlight the activities undertaken in convergence with partner organizations and success stories under its various schemes.
• It is an inclusive development programme benefitted a large number of persons from all the minority communities.

Security

Hydrographic Survey

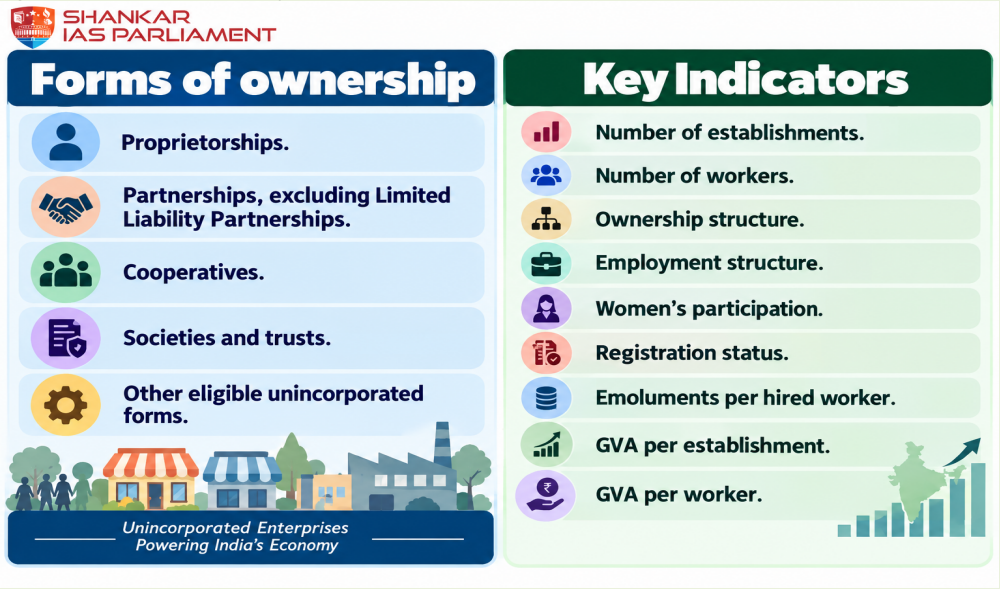
Indian Navy completes hydrographic survey of 25,000 sq. nautical miles of Mauritius.

• It determines the *physical features of an underwater* area like topographic or land surveys.

• **Usage –** To determine the *depth of a body of water*.

• **Purposes** - Building docks or marinas
  - Waterway planning
  - Diversion of water sources
  - Removing soils
  - Wreck location.

• All types of these surveys are conducted with the help of *Automatic Hydrographic Survey System (AHSS)* only.



Aatmanirbharta

• **Organized by** – Defence Research & Development Organization (DRDO).

• **Vision** – To empower India with cutting-edge technologies.

• **Theme** – Raksha Kavach - Multilayer Protection against Multi-domain Threats.

• **Purpose** – To showcase path-breaking innovations for national security during the 76th Republic Day Parade 2025.

Miscellaneous

Khelo India Winter Games (KIWG), 2025

• **Hosted by** – Union Territory of Ladakh and Jammu & Kashmir.
• **Umbrella scheme** – Khelo India Scheme.
• **Teams** – 19, comprising of states & Union Territories.
• **Sports includes**
  - **2 Ice sports** – Ice Hockey & Ice Skating.
  - **4 Snow sports** – Ski Mountaineering, Alpine Skiing, Snowboard & Nordic Skiing.
• It is the *2nd time Ladakh* is hosting the Winter Games, into its *5th edition.*
• It is the *1st time* Ministry of Youth Affairs and Sports along with Sports Authority of India is managing the technical conduct of the games.

Khelo India Scheme

• It is a National Programme for Development of Sports.
• **Aim** – To encourage sports all over the country.
• **Time Period –** 2021-22 to 2025-26.
• **Components –** Creation and Upgradation of Sports Infrastructure.
  - Sports Competitions and Talent Development.
  - Khelo India Centres and Sports Academies.
  - Fit India Movement.
  - Promotion of Inclusiveness through Sports.

SHANKAR IAS PARLIAMENT
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