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Irrawaddy dolphins

- Irrawaddy dolphins can grow to a length of 2.3 m and attain a weight of 130 kg.
- This species is closely related to the killer whale, a much larger, oceanic dolphin that can grow to 8m and weigh in excess of 6 tones.
- Although the species gets its common name from the Irrawaddy River in Myanmar, where it also lives, it was first described in 1866 from a specimen found in the Vishakapatnam harbour in present day Andhra Pradesh on India's east coast.
- Its range extends from the Bay of Bengal to New Guinea and the Philippines.
- Besides the Irrawaddy River, it is also found in India's Ganges, and Southeast Asia's Mekong River.
- However, it is not a true river dolphin and prefers to live in estuaries and brackish water near coasts.
- Following the opening of the sea mouth in Chilika in 2002, and the consequent increase in water depth, dolphins have reportedly been recorded in more areas of the lake than before, perhaps indicating an expansion of suitable habitat.
- Irrawaddy dolphins are classified as 'Endangered' in the IUCN Red List of Threatened Species.
- In Chilika they can be seen singly, in pairs or as small groups of 4-6 individuals, they are slow swimmers.

Chilika Lake

- Chilika Lake is the largest brackish water (mixture of saline and fresh water) lagoon of India, spread over the Puri, Khurda and Ganjam districts of Odisha State on the east coast of India.
- It is the largest coastal lagoon in India, located at the mouth of the Daya River, which is flowing into the Bay of Bengal, covering an area of over 1,100 km.
- It is designated as 'wetland of international importance under the Ramsar convention.
- Before Cyclone Fani hit the Odisha coast, Chilika lake had only two active mouths - the point where it meets the sea.

- But after Fani Cyclone four new mouths have opened due to wave energy with high tidal prism.
- With the opening of new mouths, a lot of sea water is entering Chilika Lake and, thereby increasing salinity of Chilika lagoon, Increasing salinity may alter Chilika's ecosystem.
- Generally, if sea water ingression goes up, fish migration will increase and the biodiversity will get richer.
- However, its long term impact needs a proper vigil.

Dolpin Census

- The dolphin census in Odisha coast was taken up by the Chilika Development Authority (CDA).
- According to last year's census, the Irrawaddy dolphin population in Chilika was 151, by which Chilika is considered as the highest single lagoon dolphin population in the world.
- The census was conducted using hydrophones.
- A hydrophone is a microphone designed to be used underwater for recording or listening to underwater sound.
- Most hydrophones are based on a piezoelectric transducer that generates an electric potential when subjected to a pressure change, such as a sound wave.
- A hydrophone can detect airborne sounds, but will be insensitive because it is designed to match the acoustic impedance of water, a denser fluid than air.

Project 39A

- Project 39-A is unique initiative of National Law University, Delhi.
- Project 39A is inspired by Article 39-A of the Indian Constitution, a provision that furthers the intertwined values of equal justice and equal opportunity by removing economic and social barriers.
- The fourth edition of 'The Death Penalty in India: Annual Statistics' is published by Project 39A.
- According to the report, the number of death sentences awarded for murders involving sexual offences in 2019 was at the highest in four years.

National Informatics Centre (NIC)

- National Informatics Centre (NIC) is an attached office under Ministry of Electronics and Information Technology (MeitY), Government of India.
- National Informatics Centre (NIC) as a premier technology advisor and ICT solution provider to Government at all levels.

- NIC provides infrastructure to help support delivery of Government IT services and delivery of some of the initiatives of Digital India.
- Earlier, NIC has also established NICNET or National Knowledge Network (NKN).

Centre of Excellence (CoE) in Block chain Technology

- Recently NIC has set up the Centre of Excellence (CoE) in Blockchain Technology in Bengaluru, Karnataka.
- New and previously unforeseen applications of Blockchain in the Government are expected to enhance transparency, traceability and trust in e-governance systems.
- The Centre of Excellence will facilitate the Government Departments in building proof of concepts for use of Block chain technology in different dimensions of governance leading to large-scale deployment of some such applications.

Pulse Polio Programme

- India launched the Pulse Polio immunization programme in 1995, after a resolution for a global initiative of polio eradication was adopted by the World Health Assembly (WHA) in 1988.
- Children in the age group of 0-5 years are administered polio drops during national and sub-national immunization rounds (in high-risk areas) every year.
- Under the Pulse Polio programme, all states and Union Territories have developed Rapid Response Teams (RRT) to respond to any polio outbreak in the country.
- Emergency Preparedness and Response Plans (EPRP) have also been developed by states, indicating steps to be undertaken in case of detection of a polio case.
- To prevent the virus from coming to India, the government has since March 2014 made the Oral Polio Vaccination (OPV) mandatory for those travelling between India and polio-affected countries, such as Afghanistan, Nigeria, Pakistan, Ethiopia, Kenya, Somalia, Syria and Cameroon.
- India completed a full 5 years as a “polio-free nation” on January 13, 2016.
- India’s last reported polio case was from Howrah, West Bengal in the year 2011.

Polio Disease

- The World Health Organization (WHO) defines polio or poliomyelitis as “a highly infectious viral disease, which mainly affects young children.

- The virus is transmitted by person-to-person, spread mainly through the faecal-oral route or, less frequently, by a common vehicle (e.g. contaminated water or food) and multiplies in the intestine, from where it can invade the nervous system and can cause paralysis.
- Initial symptoms of polio include fever, fatigue, headache, vomiting, stiffness in the neck, and pain in the limbs.
- In a small proportion of cases, the disease causes paralysis, which is often permanent.
- There is no cure for polio, it can only be prevented by immunization."

Exploratory Drilling License

- The Environment Ministry has exempted oil and gas firms, looking to conduct exploratory drilling, from seeking an environmental clearance.
- The clearance is for both on-shore and offshore drilling explorations and the process is an ecologically-intensive exercise that involves digging multiple wells and conducting seismic surveys offshore.
- Until today, even exploratory surveys have merited the highest level of environmental scrutiny — called category 'A' — that required project proponents to prepare an environment impact assessment (EIA) plan, have it scrutinized by a centrally constituted committee of experts and subject the proposal to a public hearing involving the local residents of the proposed project site.
- While public hearings, even for category A projects are frequently exempted if they are offshore, the new amendments demote exploratory projects to the category of 'B2'.
- This means it will be conducted by the States concerned and will not require an EIA.
- The move is part of a larger process of 'decentralization' by the Centre in that it seeks to farm more regulatory actions to State and local units.
- Developing an offshore or onshore drilling site as a hydrocarbon block will however continue to merit a "category A" treatment.

K- 4 Ballistic Missile

- India recently test fired K-4 nuclear capable submarine launched ballistic missile.
- It has a 3,500Km Strike range, developed by DRDO.
- It is one of the two underwater missiles that are being de3veloped by India for its submarine force.

Source: PIB, Indian Express, the Hindu, Economic Times

