UPSC Daily Current Affairs | Prelim Bits 21-04-2021

Protection for Exotic Animals

- The Delhi High Court issued an order directing the Centre to frame rules to confer protection for exotic animals that are currently not under the purview of the Wildlife (Protection) Act, 1972 (WPA 1972).
- The order came in response to a petition filed by animal rights group, People for the Ethical Treatment of Animals (PETA) India about the status of a male hippopotamus rescued from a Circus in Uttar Pradesh.

Hippopotamus

- Hippopotamus amphibius is an amphibious African ungulate mammal that lives along the rivers and lakes throughout sub-Saharan Africa.
- Known as water horse (Hippopotamus is Greek for "river horse"), it is the second largest land animal after the elephant.
- Hippos favour shallow areas where they can sleep half-submerged ("rafting") as to seek refuge from the heat.
- Lactating hippo will have white milk combined with Hipposudoric acid and Norhipposudoric acid (secreted by Hippos), makes their milk pink.
- These acids protect the hippos from harmful UV rays (like a sunscreen).
- Conservation Status
    1. **CITES** - Appendix Ill
    2. **IUCN** - Vulnerable
- **Threat** - Loss of Habitat (Humans use their grazing land for farming and diverts water for farming needs) and Human-animal conflict. Poachers kill hippos for their ivory tusks and for sport.
- Extinct in northern Africa and south of Natal and the Transvaal. They are common in East Africa, but populations continue to decrease continent wide.

Indo-German Agreement on Marine Litter

- Indian Ministry of Housing and Urban Affairs (MoHUA) and German Environment Ministry's Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH India signed an agreement.
- **[Marine Litter** is estimated that 15-20% of all plastics are entering oceans via riverine ecosystems of which 90% are contributed by 10 of the world's most polluting rivers, which includes Ganga and Brahmaputra.]

- This Indo-German agreement on Technical Cooperation is titled 'Cities Combating Plastic Entering the Marine Environment'.
- This project is envisaged under the contours of the Joint Declaration of Intent regarding cooperation in the field of 'Prevention of Marine Litter' signed between India and Germany in 2019.
- **Project's aim** is to enhance practices to prevent plastic entering the marine environment.
- This will improve segregation, transportation, treatment and disposal of waste in municipalities, thereby establishing an efficient system, which will ensure that no plastic waste finds its way into rivers or oceans.
- This will be combined with data management and reporting systems, civil society involvement and increased cooperation with recyclers and the recycling industry through a digital platform.
- It will also improve handling of port and marine waste.
- It will be undertaken at the national level (at MoHUA), select states (Uttar Pradesh, Kerala and Andaman & Nicobar Islands) and in the cities of Kanpur, Kochi and Port Blair for three and a half years.
- It will support the Swachh Bharat Mission-Urban's implementation with special focus on preventing plastic litter entering the rivers and water bodies at source.

Amendments To Finance Bill 2021

- The Union Cabinet gives ex-post facto approval for the Government amendments to the Finance Bill, 2021 (enacted in March, 2021 as the Finance Act, 2021).
- These Government amendments will clarify the proposals further and address stakeholders concerns arising out of amendments in the Bill.
- **Objectives** - The amendments shall provide equity and inclusiveness to all the taxpayers by addressing stakeholders concerns.
- The amendments to the Finance Bill, 2021 are tax proposals which shall generate timely revenue for the Government and streamline existing provisions by addressing grievances of the taxpayers.

Subsidy Policy for Urea

- The Union Cabinet approved an exclusive subsidy policy for urea produced through coal gasification by Talcher Fertilizers Limited (TFL).
- [TFL is a joint venture company of four PSUs - Rashtriya Chemicals & Fertilizers, GAIL (India), Coal India and Fertilizer Corporation of India, which was incorporated in November 2015.]
- TFL Urea project would assist in reducing urea imports to the tune of 12.7

lakh tonne per annum leading to savings in foreign exchange.

ICAI Signs MoU

- The Cabinet approved a fresh Memorandum of Understanding (MoU) between the Institute of Chartered Accountants of India (ICAI) and Chartered Accountants Australia and New Zealand (CA ANZ).
- These two institutes will have a chance to play the leadership role in addressing new challenges facing the profession in a global environment.
- This engagement would result in greater employment opportunities for Indian chartered accountants and also greater remittances back to India.

CCI signs MoUs

- The Cabinet approved MoU between Competition Commission of India (CCI) and Administrative Council for Economic Defence of Brazil (CADE).
- Accordingly, CCI has entered into six MoUs –
    1. Federal Trade Commission and Department of Justice, USA;
    2. Director General Competition, European Union;
    3. Federal Antimonopoly Service, Russia;
    4. Australian Competition and Consumer Commission;
    5. Competition Bureau, Canada; and
    6. BRICS Competition Authorities.

Hydrogen - Fuel of the Future

- Hydrogen, the most abundant element in the universe, was used as a fuel in Apollo I that landed on the moon in 1969.
- Hydrogen provides three times more energy than fossil fuels. It is the ultimate green fuel that releases pure water as the only by-product.
- It is one of the leading options for storing energy from renewable as it may be the lowest-cost option for storing electricity over days or even months.
- **Shift** - Countries want to replace fossil fuels with renewable sources to isolate green hydrogen. This shift is happening as,
    1. Fossil fuels can no longer be used to meet the world's energy needs.
    2. Natural abundance of hydrogen means it has the potential to level competition in the automotive sector, whereas the supply of raw materials for EV batteries is controlled by a few large players.
- **Challenges** - Availability of cheap fossil fuel meant hydrogen energy never really picked up.
- Hydrogen does not occur naturally as a gas on the Earth (Always occurs combined with other elements such as water).
- This is because an external energy source is required to isolate hydrogen.

- Currently, fossil fuels are used to isolate hydrogen almost. This is called grey hydrogen and it is as polluting as fossil fuel.
- TERI says that the current cost of green hydrogen production is $5-6/kg, which is almost thrice the cost of grey hydrogen.

Findings

- **International Renewable Energy Agency (IRENA)** suggests that the share of hydrogen in the 2050s energy mix should reach to 12% from almost zero right now.
- It says 66% of the hydrogen to be used in 2050 needs to be green - produced from water as compared to natural gas.
- **World Energy Transitions Outlook Report (IRENA)** - Around 120 tonnes of hydrogen are produced annually and less than 1% is green hydrogen.

Green Hydrogen Catapult Initiative

- In 2020, a consortium of seven biggest global green hydrogen project developers launched the Green Hydrogen Catapult Initiative to increase the production of green hydrogen 50-fold in the next six years.
- The initiative aims to cut the cost of green hydrogen to less than $2/kg, which is a potential tipping point that will make it competitive in multiple sectors including steel, power generation, shipping, etc.
- It will ramp up the annual green hydrogen production to 25GW by 2026.

Indian Initiatives

- India reiterated its commitment to green hydrogen by launching the Hydrogen Energy Mission through the Union budget 2021.
- It has earmarked Rs 1,500 crore for the mission and the Indian Renewable Energy Development Agency though details are awaited.
- The public sector undertaking NTPC is working on pilot hydrogen buses between Delhi and Jaipur and in Leh.
- It is also planning to set up a 100 MW floating solar plant at its power plant in Ramagundam, Telangana to produce green hydrogen.
- NTPC Energy Technology Research Alliance and Bhabha Atomic Research Centre are working to develop solid oxide steam electrolysers that will be 25% more efficient than existing alkaline electrolysers.
- The element has to be compressed and stored at high pressures as it is very light and escapes easily.
- So, NTPC is experimenting with metal hydrides, which require 10 times less energy to compress hydrogen than any current technology, for compressing hydrogen.

- The company is also trying to tap seawater for producing hydrogen.
    1. It has set up a 0.12 million-litres capacity flue gas-based desalination plant at its Simhadri plant in Andhra Pradesh.
    2. Another plant of the same capacity is running at NTPC's Vallur plant in Tamil Nadu, which is based on solar thermal energy.

Source: DD News, Down To Earth, Business Standard, Business Line, Economic Times

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