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China's Dragon Man

- Researchers from China have found an ancient human skull of new human species dubbed the "Dragaon Man" or Homo longi in the Songhua River in China's Harbin city that could belong to an altogether.
- The name "Dragon Man" has been derived from the Long Jiang or Dragon River in China' Heilongjiang province where Harbin is located.
- The cranium could be over 146,000 years old. Because of the distinctive shape of the skull, some team members have suggested that it be declared a part of a new species of the genus Homo.
- The size of the skull, which has a considerable brain capacity, is comparable to that of modern humans and Neanderthals.
- **Significance of the discovery** - If the "Dragon Man" is a new species, it might bridge the gaps between our ancient ancestors called Homo erectus and us. It brings new knowledge about the evolution of sapiens.
- Interbreeding with ancient humans allowed Homo sapiens to acquire genes that improved their chances of survival, and that some of these genes are present in modern humans even today.

Nesher Ramla Homo

- Researchers working in Israel had identified a previously unknown kind of ancient human called "Nesher Ramla Homo".
- Nesher Ramla Homo co-existed with Homo sapiens nearly 140,000-120,000 years ago when several human species co-existed in Asia, Europe and Africa.
- This archaic Homo population had mastered the use of technology that until recently was linked only to Homo sapiens or Neanderthals.
- Members of this species could hunt small and large game, they used wood for fuel, cooked and roasted meat, and maintained fires.
- These findings are important because they provide evidence that there were cultural interactions between different human lineages.

Other Human Species

- As per the Smithsonian National Museum of Natural History, there are over 21 human species. These are,

- **Sahelanthropus tchadensis** is believed to be the oldest member of the human family tree. They lived about 7-6 million years ago in Africa.
- The other species that lived in Eastern Africa are Orrorin tugenensis, Ardipithecus kadabba, Ardipithecus ramidus, Australopithecus anamensis, Australopithecus afarensis (Lucy's species), etc.
- **Homo habilis** lived about 2.4-1.4 million years ago in Eastern and Southern Africa. This species still retained some of the ape-like features.
- **Homo erectus** lived about 1.89 million-110,000 years ago, in Northern, Eastern, and Southern Africa and Western and East Asia. 'Turkana Boy' is the most complete fossil belonging to this species.
- **Homo floresiensis** lived around 100,000-50,000 years ago, in Asia.
- **Hobbit** - It is one of the most recently discovered early human species. Specimens have so far only been found on an Indonesian island.
- **Homo heidelbergensis** lived about 700,000-200,000 years ago in Europe, Asia and Africa. This was the first early human species to live in colder climates.
- **Homo neanderthalensis** lived about 400,000-40,000 years ago, and co-existed with Homo sapiens in Europe and central Asia.
- **Homo sapiens** - This is the species to which all existing humans belong evolved in Africa nearly 300,000 years ago as a result of some dramatic climate change events.

- **Neanderthals** (Homo neanderthalensis) - They are believed to be the closest extinct human relatives and lived about 400,000-40,000 years ago in Europe and southwestern to central Asia.

Kinnaur Hydroelectric Project

- The people of Kinnaur, Himachal Pradesh, are fighting to save their rivers and forests threatened by the proposed 804 mega watt Jangi Thopan Powari hydroelectricity project (JTP HEP) over the Satluj.
- The run-of-the-river (ROR) project envisages construction of,
    1. A concrete gravity dam of ±88 metre high above the deepest foundation level across river Satluj near Jangi village, and
    2. An underground powerhouse on the right bank upstream of Tehsil boundary (Kashang Nallah).
- The diversion of water will involve construction of a 12-km-long tunnel.
- Construction of the dam will result in the submergence of about 156 ha of forest and private land. The length of the reservoir will be 10.6 km.
- Multiple aspects of the tunnel will impact the Jangi, Akpa, Khadura, Thopan and Rarang villages in the Jangram Valley.
- The only reliable source for drinking, domestic and agricultural water is

mountain springs fed by glaciers.

- But tunnel for water diversion is a major component of HEP. Tunnelling disturbs the hydrogeology of the region significantly and thus impacts the springs drastically.
- Agriculture in the cold desert is not feasible without irrigation.
- The major source of irrigation for highly valued horticulture and off-season vegetables are derived from these springs and the absence of the same will drastically impact the life and livelihood of this region.
- The project lies in the Scheduled Areas and tenders the Provisions of the Panchayats (Extension to Scheduled Areas) Act, 1996, and hence makes the applicability of any provision more enforceable.
- So, it is mandatory for the company to take a no-objection certificate from all GPs concerned to commence any such project in the tribal areas.

Kinnaur

- Kinnaur district is mainly marked by its cold desert, tribal population, and fragile topography, rich and diverse culture, apple orchards, off-season vegetables and the Satluj River.
- Satlej River has been dammed at many places along the valley to create an extra feature to Kinnaur's identity as Himachal's hydropower hub.
- An integral part of the old Hindustan-Tibetan Route, Jangram Valley, lies on the right bank of the Satluj river in the district.
- Satluj has taken the biggest load of state hydropower ambition since the early 90s.
- A total of 142 Hydroelectricity projects of 10031 MW are either commissioned, under-construction planned on Satluj River. 92% of the river will either be flowing through tunnels or will be part of reservoirs.
- Kinnaur has the largest Chilgoza pine (edible seeds) forests. The HEP will impact these forests.

World Drug Report 2021

- According to the World Drug Report 2021 of the United Nations Office on Drugs and Crime's, the lockdown restrictions during COVID-19 may have accelerated drug trafficking using the Internet.
- **Findings** - Between 2010 and 2019, the number of people using drugs increased by 22%, as there was an increase in the global population.
- Opioids account for the largest burden of disease attributed to drug use.
- In last 24 years, cannabis potency had increased by four times in some parts of the globe. Percentage of adolescents who perceived drug as harmful has reduced by 40%.
- A rise in the non-medical use of pharmaceutical drugs was observed during

the coronavirus pandemic.

- **Darknet markets** - In Asia, China and India are the most frequently mentioned countries linked to shipment of drugs sold on the 19 major darknet markets analysed over 2011-2020.
- Access to drugs has become simpler than ever with online sales, and major drug markets on the dark web are worth $315 million annually.
- The use of private planes for drug trafficking and contactless transactions, such as through the mail, are also on the rise.
- Although this is a "tiny fraction" of overall drug sales, the trend of using dark web on the rise, with a fourfold increase in annual sales from the beginning of the 2010s to more recent years.
- While cannabis dominates darknet sales, marketing on the so-called clear web often involves new psychoactive substances.

AgriStack

- The Union government has decided to give agriculture a shot of technology by creating a centralised farmer database under 'AgriStack'.
- Department of Agriculture, Cooperation and Farmers Welfare entered into a MoU with Microsoft Corporation to start a pilot project in 100 villages of six states - UP, MP, Gujarat, Haryana, Rajasthan and AP.
- The MoU requires Microsoft to create a 'Unified Farmer Service Interface' through its cloud services. This platform will help digitise agricultural services delivery by the public and private sectors.
- The MoUs stress on profiling land and crop estimation using remote sensing and geo-spatial technologies.
- **'AgriStack'** is a collection of digital databases and technology-based interventions in agriculture. It is proposed by the Central Government focusing on India's farmers and the agricultural sector.
- Under the programme, each farmer will have a unique digital identification (farmers' ID) that contains personal details, information about the land they farm, as well as production and financial details.
- Each ID will be linked to the individual's digital national ID Aadhaar.
- The MoUs talk about database creation from particularly three schemes: PM-KISAN (Pradhan Mantri Kisan Samman Nidhi), Soil Health Card and PM Fasal Bima Yojna (crop insurance scheme).
- This data will be compared with land records data. If there's a mismatch, it will be shared with the local authorities for validation and field survey.
- The field data received from local authorities will be updated with the compiled data to create clean, standardised, verified data for AgriStack.

World's Fifth Ocean

- The National Geographic magazine has recognised the ‘Southern Ocean’ as the world’s fifth ocean hoping others will soon follow suit.
- [The other four Oceans are Pacific, Atlantic, Indian and Arctic Oceans.]
- Usually, the magazine has followed the International Hydrographic Organization (IHO) on marine names.
- The change in name is in alignment with the National Geographic Society’s initiative to conserve the world’s oceans.
- The Southern Ocean is the **only ocean to touch three other oceans** and to **completely embrace a continent** rather than being embraced by them.
- Its northern limit is a latitude of 60 degrees south. It is also defined by its **Antarctic Circumpolar Current** that was formed 34 million years ago. The current flows from west to east around Antarctica.
- By officially changing the name of the waterbody, the National Geographic hoped to draw attention to the following issues,
    - Rapid warming of the Southern Ocean due to global warming,
    - Industrial fishing on species like krill and Patagonian toothfish.

Recognition

- The IHO too had recognised ‘Southern Ocean’ as a distinct body of water surrounding Antarctica in 1937 but had repealed the same in 1953.
- However, the US Board on Geographic Names and the National Oceanic and Atmospheric Administration recognize the term ‘Southern Ocean’.

International Hydrographic Organization

- The International Hydrographic Organization is an intergovernmental organization that works to ensure all the world's seas, oceans and navigable waters are surveyed and charted.
- Established in 1921, it coordinates the activities of national hydrographic offices and promotes uniformity in nautical charts and documents.
- It issues survey best practices, provides guidelines to maximize the use of hydrographic survey data and develops hydrographic capabilities in Member States.
- India is also a member of IHO.

Illegal Prawn Farms in Bhitarkanika National Park

- Orissa High court had directed the district administration of Kendrapara to dismantle all illegal prawn farms in Bhitarkanika National Park.
- All the shrimp farms around the park were illegal as this violated the Coastal Regulation Zone and the rulings of the Supreme Court.
- The forest department will plant mangrove saplings over the dismantled

prawn farms to convert the area into mangrove forest.

- Farmers cultivating shrimp without registering with the Coastal Aquaculture Authority are liable to be imprisoned for three years and levied a fine of up to Rs 1 lakh.
- **Concerns** - Prawn farm owners dump the effluents of the farms into the nearby rivers and ponds. They pollute the groundwater sources in the villages. This is destroying the fertile agricultural lands.
- Illegal prawn farms pose a direct threat to the nearby mangrove forests.

Bhitarkanika National Park

- In 2015, the Union Environment Ministry declared 192 villages around Bhitarkanika as Eco-Sensitive Zones (ESZs) to prevent ecological damage caused due to developmental activities.
- ESZs prohibit any shrimp farming within 2 kms from Bhitarkanika. For this, the administration should demolish all illegal prawn farms.
- To know more about the Bhitarkanika National Park, which houses 70% of India's salt water crocodiles, click here.

Source: PIB, The Hindu, The Indian Express, Down To Earth

