

## Prelim Bits 13-12-2023 | UPSC Daily Current Affairs

### Global Partnership on Artificial Intelligence (GPAI) Summit

*Prime Minister has inaugurated the Global Partnership on Artificial Intelligence (GPAI) Summit at Bharat Mandapam.*

#### GPAI

- **Launch** - It was launched in 2020.
- GPAI is a 29 member multi-stakeholder initiative.
- **Aim** - GPAI aims to bridge the gap between theory and practice on [AI](#) by supporting cutting-edge research and applied activities on AI-related priorities.
- It is built around a shared commitment to the Organisation for Economic Co-operation and Development (OECD) Recommendation on Artificial Intelligence.
- **India** - India is a **founding** member of GPAI, having joined the multi-stakeholder initiative in June 2020 and the lead chair of GPAI in 2024.
- **Previous summits** - The first three GPAI summits were held in Montreal, Paris and Tokyo, respectively.

#### References

1. [The Indian Express - India hosts Global Partnership on AI Summit](#)
2. [PIB - Global Partnership on Artificial Intelligence \(GPAI\) Summit](#)
3. [GPAI - About GPAI](#)

### Demaorchestia Alanensis

*Researchers at Berhampur University, Odisha have discovered a new species of marine amphipod found in Chilika Lake.*

#### Amphipods

- They are commonly called Scuds or side swimmers.
- They are found commonly in *both surface and subterranean* freshwater habitats.
- They constitute the most diverse and ubiquitous (being everywhere) group in freshwater.
- Amphipods are a significant group in the marine ecosystem and play a vital role in the marine food chain.
- They also serve as indicators for studying the impact of climate change and health of coastal ecosystems.



### **Demaorchestia alanensis**

- It is a shrimp-like crustacea of genus Demaorchesti and was named Demaorchestia alanensis after global expert professor Alan Myers.
- **Features** - The new species is white in colour and less than 15 millimetres in length and has 13 pairs of legs.
- While three pairs are used for swimming in the water, eight pairs are used for walking on land.
- The other two pairs are used for capturing prey and feeding.
- The species can be distinguished from the other members of the genus by two to three strong, hair-like structures or setae on the anterior margin of the propodus of the gnathopod.
- It belongs to the subfamily Platorchestiinae found along the Indian coast.

*Other such amphipods found in India are Quadrivisio Chilikensis from the seaweeds near Nalaban and the Talorchestia buensis from the West Bengal coastal area.*

### **References**

1. [Down To Earth - New marine amphipod species found in Chilika Lake](#)
2. [Britannica - Amphipods](#)

### **Saiga Antelope**

*Saiga Tatarica was changed from Critically Endangered to Near Threatened by the International Union for Conservation of Nature (IUCN).*

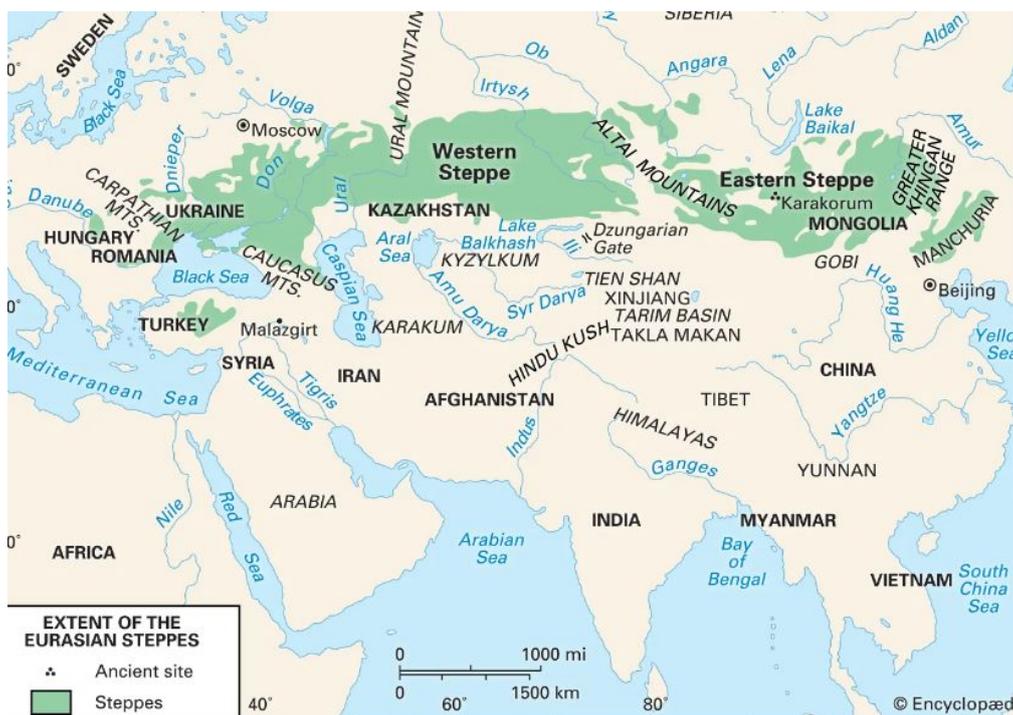
- The Saiga, the odd-faced antelope has roamed the earth since the last Ice Age.
- They are medium sized hoofed mammal that belongs to the family Bovidae.
- They lives in herds in treeless steppe country.

*Hoofed mammal are animals with a hard, nail-like case called a hoof covering each toe on their feet.*

- **Sub-species** - The Saiga has two sub-species
  - **Saiga tatarica** (found in most of the range) and
  - **Saiga tatarica mongolica** (found only in Mongolia).
- The antelope were once found throughout the Eurasian Steppe, the great band of grassland that stretches from Hungary in Europe to Manchuria in Asia.
- Today, the animal is found in fragmented populations within Kazakhstan, Mongolia, the Russian Federation and Uzbekistan, according to the Saiga Conservation Alliance (SCA).
- Since 2002, the Saiga has been considered by the International Union for Conservation of Nature (IUCN) to be critically endangered.

## Steppes

- A steppe is a dry, grassy plain which occur in temperate climates, which lie between the tropics and polar regions.
- Temperate regions have distinct seasonal temperature changes, with cold winters and warm summers.
- The Steppe, belt of grassland that extends from Hungary in the west through Ukraine and Central Asia to Manchuria in the east.
- Climate is continental with extremes of temperature varying greatly between summer and winter.



## References

1. [Down To Earth - Saiga has beaten extinction](#)
2. [Britannica - Saiga Antelope](#)
3. [SCA - Saiga Conservation Alliance](#)

## Google Gemini

Alphabet, Google's parent company came out with its most advanced AI model, called

*Gemini.*

- It is a new multimodal general and flexible AI model, which comes in three sizes.
- Multimodal means it can work, understand, and operate across text, code, audio, image, and video.

*[ChatGPT](#) cannot work on video at the moment, at least not natively.*

- Gemini can understand, explain and generate high-quality code in the world's most popular programming languages, like Python, Java, C++ and Go.
- **Gemini ultra** - Gemini Ultra is the first model to outperform human experts on massive multitask language understanding (MMLU), which uses a combination of 57 subjects.

### **The three sizes of Gemini**

- The three sizes are Ultra (which is yet to be launched), Pro and Nano.
- Gemini Ultra, the largest and most capable model, will be for highly complex tasks.
- Gemini Pro will be best at scaling across a wide range of tasks and is now available in Bard for regular users across the world.
- Gemini Nano will manage on-device tasks, and is already available on Pixel 8 Pro.

### **References**

1. [The India Express - Google Gemini](#)
2. [The Hindu - Google Gemini, Race of chat bots](#)
3. [Business Standard - Google's Gemini](#)

### **Regional Overview of Food Security and Nutrition 2023: Statistics and Trends**

*The Food and Agriculture Organisation (FAO) of the United Nations launched the Regional Overview of Food Security and Nutrition 2023: Statistics and Trends report.*

- The FAO report is a glimpse on the progress in meeting Sustainable Development Goals and World Health Assembly (WHA) global nutrition targets.

### **Findings**

- 74.1% of Indians (2020 - 76.2%) were unable to afford a healthy diet in 2021, Pakistan (82.2%), and in Bangladesh (66.1%) of the population faced difficulties in finding healthy food.
- Rising food costs, if not matched by rising income, will lead to more people unable to afford a healthy diet, the report warned.
- The report said during the COVID-19 pandemic and the 5Fs crisis, Food, Feed, Fuel, Fertilizers, and Finance, the region witnessed harrowing statistics.
- The latest statistics indicate that the region, with 370.7 million undernourished people, continues to represent half of the global total.

- Similarly, the Asia and the Pacific region accounts for half of the world's severe food insecurity, with more women than men being food insecure.
- The report said 16.6% of the country's population is undernourished.
- The region, according to the report, had a lower prevalence for both moderate or severe and severe food insecurity when compared with the world prevalence since 2015.

## Food and Agriculture Organisation (FAO)

- **Established** - In 1945, in Quebec City, Canada, the first session of the newly created United Nations establishes the Food and Agriculture Organization (FAO).
- The FAO is a specialized agency of the United Nations that leads international efforts to defeat hunger.
- **Aim** - It aims to achieve food security for all and make sure that people have regular access to enough high-quality food to lead active, healthy lives.
- **Members** - With 195 members (194 countries and the European Union), FAO works in over 130 countries worldwide.
- **Headquarters** - During its commencement Washington D.C. was designated as a temporary FAO headquarters, at present the headquarters is at Rome, Italy.

## References

1. [The Hindu - 74.1% of Indians unable to afford a healthy diet](#)
2. [FAO - About Food and Agriculture Organisation \(FAO\)](#)

## Other Important News

### Indian Tent Turtles

- Directorate of Revenue Intelligence (DRI) seized 436 baby Indian Tent turtles from a person illegally transporting them in Lucknow recently.
- The Indian tent turtle (***Pangshura tentoria***) is a species of turtle that is native to India, Nepal, and Bangladesh.
- Indian tent turtles are mainly ***omnivorous*** and live in freshwater rivers and swamps.
- **Conservation**
  - IUCN - Least concern
  - CITES - Appendix II
  - Schedule 1 of Wild Life (Protection) Act, 1972.

### "SAMUDRA" (Smart Access to Marine Users for ocean Data Resources and Advisories)

- "SAMUDRA" (Smart Access to Marine Users for ocean Data Resources and Advisories) is a mobile app that provides comprehensive information on all ocean-related services.
- The app is useful for ***seafarers and the fishing community***.
- The app was launched by the ***Indian National Centre for Ocean Information Services (INCOIS)***.
- INCOIS is an autonomous body under the Ministry of Earth Sciences located in Hyderabad.

### **Ceasefire in Gaza**

- India and 152 other members vote overwhelmingly at U.N. General Assembly (UNGA) to demand a humanitarian ceasefire in Gaza recently.
- The vote in the **193-member** world body was 153 in favor, 10 against (includes **US and Israel**) and 23 abstentions.
- The resolution is **non-binding** but it serves as an indicator of global opinion.
- **UNGA** is one of the 6 principal organs of the United Nations and the main policy making body of UN that votes on the decision that organization makes.

### **Currency Devaluation in Argentina**

- Argentina recently devalues its currency and cuts subsidies as part of shock economic measures because of its 143% annual inflation.
- **Argentine peso** will be devalued by 50% to 800 to the U.S. dollar from 400 pesos to the dollar.

### **5G Radio Access Network (RAN)**

- The 5G RAN technology developed by 2 IITs and the R&D arm of Ministry of Electronics and Information Technology was handed over to Indian tech company for commercial applications.
- 5G RAN uses 5G radio frequencies to provide wireless connectivity to devices.
- A radio access network (RAN) is a key component of a mobile telecommunication system that connects devices like smartphones to a network via a radio link.

### **Kambar**

- Kambar is a title of the Occhans, to which caste Tamil epic poet Kambar is reputed to have belonged.
- Uvachar or Occhan is a community in southern districts of **Tamil Nadu**, a class of temple priests who usually officiate as pujaris at Pidari, Kali and other Amman (Grama Devata) temples.
- The name Kambar in the southern districts of Tamil Nadu and at Thiruvananthapuram in Kerala identifies them with nagaswaram and thavil.
- They wear also known by names such as Parisaivar, Vallavarayar and Sallirayar.

### **Lyfgenia**

- U.S. Food and Drug Administration approved two treatments, Casgevy and Lyfgenia, representing the **1<sup>st</sup> cell-based gene therapies** for the treatment of [sickle cell disease \(SCD\)](#) recently.
- Lyfgenia is a cell-based gene therapy, uses a lentiviral vector (gene delivery vehicle) for genetic modification.
- Lyfgenia modifies a patient's blood stem cells to produce a modified version of the HBB gene.
- It is approved for the treatment of patients 12 years of age and older with sickle cell disease and a history of vaso-occlusive events.

### **Kazhuveli bird sanctuary**

- Kazhuveli Wetland Birds Sanctuary is situated in the Villupuram district of Tamilnadu.
- The Kazhuveli wetland is one of the major wetlands on the Coromandel Coast after the Pulicat Lake.
- The lake is connected to the Bay of Bengal by the **Uppukalli Creek and the Yedayanthittu estuary** and is visited for nesting by migratory birds on the Central Asian flyway.
- Listed as one of Tamil Nadu's 141 prioritised wetlands, Kazhuveli is also a wetland of **international significance and a potential Ramsar site.**

### **Sparkling Disability Inclusive Rural Transformation (SPARK) Project**

- **Aim** - To help people with disabilities, especially women and youth with disabilities, become active participants.
- **Implemented by** - The ILO and the International Fund for Agricultural Development (IFAD), in collaboration with the Women's Development Corporation in Maharashtra.
- Through this project, persons with disabilities were trained as Disability Inclusion Facilitators (DIFs).
- **International Fund for Agricultural Development (IFAD)** is a United Nations agency that works to eradicate poverty and hunger in developing countries.

### **Cyclone Jasper**

- Jasper is a **Tropical Cyclone** that formed in the north coast of Queensland in **Australia.**