Prelim Bits 20-11-2023 | UPSC Daily Current Affairs

Halal

Recently, Uttar Pradesh government has ordered a state-wide ban on products being sold with halal certificates.

- An Arabic word meaning ***'permissible' in English.***
- In India, it mostly refers to the *slaughtering technique of Muslims*.
- As per Islamic dietary laws, it refers to food that is procured, processed, and traded in compliance with Islamic belief.

Kashrut dietary rules are followed by orthodox Jews.

- **Coverage** – Consumables (meat, fish, shellfish and vegetarian food) including medicines, personal care products, packaging materials, animal feed, etc

*In the Quran, 'halal' refers to lawful (and allowed) and the term '**haram refers to unlawful (and forbidden)**. Anything that are associated with pig and intoxicants (alcohol) are considered as non-halal (haram).*

- **Criteria** – In case of meats, it must satisfy requirements relating to their ***source, the way of animal killing and processing***.
    - For example, animals must be alive and healthy at the time of slaughter and it must be done through a single cut to the jugular vein, carotid artery and the windpipe.

Carotid artery carries blood from the brain to the heart and vice versa.

- **Halal certificates** – It assures the legitimacy of product and doesn't have anything to do with meat.
- ***India does not have an official regulator for the certification*** but various halal certifying agencies provides companies, products, or food establishment's halal certifications.
- Their legitimacy lies in their name-recognition among Muslim consumers and from regulators in Islamic countries.

***Halal India's certification** is recognised by Qatar's Ministry of Public Health, the UAE's Ministry of Industry and Advanced Technology, and Malaysia's*

Department of Islamic Development, among others.

- **Significance** – International accreditations are particularly important for products meant for export to Islamic countries.

Reference

Indian Express| Halal certification

Chhath Puja

Recently, the 4 day celebration of Chhath Puja started off in many parts of Northern India.

- **Chhath** – It means ***Shashthi in Sanskrit meaning the 6th***.
- **Celebration** - It honours 'the Sun' which is celebrated ***6 days after Diwali or on the 6th day of Kartik month*** while some celebrate in Chaitra month (Chaiti Chhath).

Chhath Puja involves a fast without water, offerings to ***Usha*** *and* ***Pratyusha****, the light of the rising and the setting Sun, while standing in a water body.* **Chhathi maiyya** or Mother Chhathi, Sun's sister, is considered an exacting but generous deity.

- **Location** – In ***Bihar, parts of eastern Uttar Pradesh and Nepal*** and it has become a lot more visible across the country.
- **Activities** – Fasting, cleaning river banks and the roads leading up to those banks and preparing thekuas (the prasad for the festival).
  - The 1st day is called *naha (sea) kha (meal).*
  - The 2nd day is called kharna,
  - The 3rd day is called Sanjh ka Arghya, or the evening offering.
- **Uniqueness** – It is a **coming together of the Bihari migrants** who immerse in their culture and homeland once more.
- ***No priests*** are involved and people of any caste can participate.
- Both ***women and men observe the fast for God***, and not for husband or children (like in Karwa Chauth or Jitiya).
- The offerings are of seasonal, locally produced and thus easily accessible fruit.

Origin theories of Chhath Puja
• A carryover from the time that man worshipped nature. • ***In Ramayana***, Lord Ram and Goddess Sita were said to have fasted for the Sun god after returning victorious to Ayodhya. • ***In Mahabharata***, when the Pandavas were in exile, Draupadi observed a fast and prayed to the Sun and Karna also organised an elaborate ceremony in honour of Surya (the Sun), his father.

Reference

Indian Express| Chhath Puja

Kadalundi Mudflats

Sand sedimentation is causing the mudflats of Kadalundi to vanish.

- **Kadalundi** – A village on the southwest coast in Kozhikode, Kerala that had about ***8 hectares of nutrient rich intertidal mudflats*** in the early 2000s.

  Kadalundi River *is the 6th longest River of Kerala. It originates from the Western Ghats and has 2 tributaries Olipuzha and Veliyar. The Kadalundi River and the Chaliyar River merges with the Arabian Sea at Kadalundi.*

- **Threat** - Today, it has *reduced to about 1 hectare.*
  - ***Sedimentation of sand*** deprives prey to migrant birds.
  - ***Mangrove proliferation*** is aggressively invasive and they never attracts migratory birds because of predator's presence.
  - ***Kerala floods of 2018 and 2019*** hastened the process of degradation in Kadalundi.

  The ***Kadalundi Bird Sanctuary*** *is home to over a 100 species of native birds and about 60 species of migratory birds.*

  Kadalundi-Vallikunnu Community Reserve (KVCR) *is India's 1st river front community reserve. It spread across the 1.5km2 and endowed with good patches of Mangrove forest.*

Mudflats

- They are also known as *tidal flats which are coastal wetlands* that form when mud is left behind by tides or rivers.
- They're found in sheltered regions such as bayous, lagoons, estuaries, and bays.
- The majority of the sediment in a mudflat is *within the intertidal zone*, therefore the flat is submerged and exposed about twice per day and is *usually barren (without any vegetation).*
- **Importance** - It is vital in *preventing coastal erosion* and act as habitat for birds.

  Soil contains nearly twice the amount of carbon compared to the combination of the atmosphere, vegetation, and animals.

Reference

The Hindu| Kadalundi Mudflats

Maritime Continent (MC)

According to a new study, deforestation in the Maritime Continent (MC) can strengthen subtropical El Nino-Southern Oscillation (ENSO) dynamics, causing more Central Pacific and multi-year ENSOs.

> *ENSO is an important climate phenomenon on Earth due to its ability to change the global atmospheric circulation, which in turn influences temperature and precipitation across the globe.*

- **Geography** – A region ***around Southeast Asia between the Indian and Pacific oceans*** (Indonesia, Philippines, Papua New Guinea and 1000's of islands and many seas).
- **Climate** – It is the *warmest large span of ocean* in the world, with an *average temperature of about 82 degrees Fahrenheit*.
- A lot of water evaporates and carried by tropical breezes, it drifts over the islands.
- **Importance** - It **drives air currents** circling around the planet, and also helps ***drive El Niño and La Niña*** thereby influencing the climate and weather in much of the world.

- **Impact of deforestation** – It reduces evapotranspiration and surface albedo which ***impacts land-atmosphere-ocean interactions*** such as the land-sea breeze.
- It might lead to **13.8% increase in La Nina events** and **44.7% increases in multi-year El Nino events**.

> *According to **State of the World's Forests 2022 by FAO (UN)**, forests absorbed more carbon than they emitted in 2011–2020 due to conservation efforts and it contain 662 billion tonnes of carbon which is more than half the*

global carbon stock in soils and vegetation.

FAO also estimated that around 420 million hectares (ha) of forest were lost between 1990 and 2020 and it was at 10 million ha per year in 2015–2020.

Reference

Down To Earth| Impact of deforestation on Maritime Continent

Global Warming Potential (GWP)

Some large industrialised meat and dairy companies promotes a new metric for measuring methane emissions, called GWP as a more accurate way to calculate emissions from the greenhouse gas (GHG).*

- **GWP** – It tells us how much heat a greenhouse gas (GHG) traps in the atmosphere.

Greenhouse gas	Average lifetime in the atmosphere	Global warming potential of one molecule of the gas over 100 years (Relative to carbon dioxide=1)
Carbon dioxide	50-200 years*	1
Methane	12 years	21
Nitrous oxide	120 years	310
CFC-12	100 years	10,600
CFC-11	45 years	4,600
HFC-134a	14.6 years	1,300
Sulfur hexafluoride	3,200 years	23,900

- It measures the energy absorbed by 1 ton of an atmospheric gas over a specific period relative to energy absorbed by 1 ton of Carbon di-oxide (CO2) over the same time.
    - **For example,** the GWP of methane (CH4) is around 21 times greater than that of CO2.
- Gases with a higher GWP absorb more energy, per pound, than gases with a lower GWP, and thus contribute more to warming Earth
- **Factors determining GWP** – Atmospheric lifetime, absorption spectrum, and concentration of the GHG in the atmosphere.

	GWP 100	GWP*
Establishment	Devised under the 2015 Paris Agreement of UNFCCC	In 2016 by Oxford University and introduced in COP24 of UNFCCC in 2018
Baseline gas	Carbon di-oxide (CO2)	Methane (CH4)
Focus	On the absolute level of emissions.	On relative changes in emissions.
Timescales	Over a 100-year period	Over 10-year period

*The **order of most abundant GHGs** in the Earth's atmosphere is Water vapor,*

Carbon dioxide, Methane, Nitrous oxide, Ozone, Chlorofluorocarbons.

Reference

Down To Earth| GWP 100 and GWP*