

Prelim Bits 31-10-2023 | UPSC Daily Current Affairs

Jehovah's Witnesses

The recent low intensity blast at a convention centre in Kalamassery area of Kochi in Kerala that targeted a congregation of Jehovah's Witnesses was an Improvised Explosive Device (IED) explosion.

- **Jehovah's Witnesses** - They are a Christian sect who does not believe in the Holy Trinity.

Holy Trinity is the doctrine that God exists in three equal persons of the Father, the Son (Jesus Christ) and the Holy Spirit.

- **Origins** - Bible Student movement of 1870s in USA.
- **Governance body** - Watch Tower Bible in New York and Tract Society of Pennsylvania.
- **Belief** - They worship Jehovah and considered Jehovah as the God of Abraham, Moses, and Jesus and their belief is based only on the text of the Bible.
- They don't celebrate Christmas or Easter, because they believe such festivals to be inspired by Pagan traditions.

Paganism consists of various groups practicing nature-based polytheistic religions, loosely based on the religions of the ancient world

Wiccans, Druids, Shamans, Sacred Ecologists, Odinists and Heathens all make up parts of the Pagan community.

- **Controversy** - They refuse to vote, run for public office, serve in any armed forces, salute the flag, stand for the National Anthem, or recite the pledge of allegiance.
- **In India** - They have been present in India since 1905 and have a legally permitted office in Bombay.

*In **Bijoe Emmanuel vs State of Kerala, 1986**, the Supreme Court granted protection to 3 children belonging to the Jehovah sect, who did not join in the singing of the National Anthem at their school and cited that forcing them to sing violates their fundamental right to religion under Article 25 of the Constitution.*

Article 25 of the Indian Constitution guarantees the freedom of conscience, the freedom to profess, practice, and propagate religion to all citizens which are

subject to public order, health, and morality.

References

[The Indian Express | Jehovah's Witnesses](#)

Legality of possessing wildlife articles

Big Boss Kannada contestant has been recently arrested for allegedly wearing a tiger claw pendant.

- Under the Wildlife Protection Act of 1972, killing wild animals and selling or possessing animal articles such as their claws, skin or horns is a criminal offence.

Animal articles or animal trophy refers to any artefact which is made with a part or a whole of a wild animal listed under the Wildlife Protection Act of 1972.

- **Ownership certificate** - It provides custodianship of animal artefact and neither grants absolute ownership nor gives the right to gift, buy or sell a wildlife article.
- Ownership certificate will be issued by the ***Chief Wildlife Wardens*** of each state.
- The transportation of the possessed material from one location to another requires permission from the Chief Wildlife Warden.
- Legal possession of an animal article is allowed only in the following ways that too with a mandatory ownership certificate:
 - A person holding custody before the enactment of the 1972 law
 - If article is declared during the moratorium given by various State Governments
 - If a person inherited the article from a blood relative or spouse.
- **Inheritance rights** - A husband who has an article and an ownership certificate cannot gift it to his wife while he is alive, but she can inherit it after his death.

***Taxidermy** is the art of preserving an animal's body by mounting or stuffing, for the purpose of display or study.*

References

[The Hindu | Possession of wildlife articles](#)

Tamil Lambadi Embroidery

Porgai Artisan Association Society of Tamil Nadu has been manufacturing traditional embroidered clothes to ensure awareness and continuity about the art form.

- The word 'Porgai' in Lambadi dialect means 'pride'.
- **Lambadi Tribe** - A *nomadic tribe* where men do agricultural trade and pastoralism and women largely does embroidery work.
- They moved to the southern part of India *from Gujarat and Rajasthan* over a period of time.

*The **migration of Lambadi's** gained pace around the 17th century, during the reign of Mughal emperor Aurangzeb who was assisted by the Lambadis for the transportation of goods to the southern part of India.*

- *Criminal Act of 1871 halted free movement* and thus many Lambadi's settled in Andhra Pradesh, Maharashtra, Karnataka, Telangana, and Tamil Nadu.

***Sittilingi Valley**, a remote village in Dharmapuri district of Tamil Nadu is the 2nd southernmost settlement of Lambadis in India.*

- **Petia** - It is a traditional *5 piece embroidery dress* of Lambadi people which is now made *from Mushru silk of Kutch*.
- **Embroidery designs** - They are all *geometrical patterns* with squares, rectangles, and circles and are done *on cotton and silk fabrics*, using colourful cotton threads.
- They have also been influenced by the local forests, birds, fruits and flowers.
- **Uniqueness** - These are *different from the Banjaras of Andhra Pradesh or the Lambadis of Karnataka*.
- It does not have any distinct motifs but has varied stitch forms and distinct layouts and patterns.



***Lambadi or Banjara embroidery from Karnataka** were listed under UNESCO's list of exclusive and iconic heritage textile crafts of India.*

References

[The Hindu| Tamil Lambadi Embroidery](#)

Working of Photocopying

Xerography revolutionised the way we copy, print, and distribute textual material.

- **Photocopying** - It is a set of techniques to duplicate some content using light but the contemporary colloquial use of photocopy refers exclusively to xerography.
- **Xerography** - A type of photocopying method that doesn't involve messy liquid chemicals and the word 'xero' means 'dry' in Greek.

In 1946, New York-based Haloid Photographic Company purchased a licence from Battelle (which borrowed the technique from Chester F. Carlson) and build the Xerox machine in 1948.

- **Working principles** - Electricity (flow of electrons) and photo conductivity (conduction of electricity when illuminated with light).

Working Mechanism

- **Paper-to-be-copied (TBC)** - It is illuminated with a bright light where the darker parts of the paper (printed portion) don't reflect the light whereas the unmarked parts do.
- This reflected light is carried by lenses and mirrors to fall on the photoconductive surface.
- **Photoconductive surface** - It is a negatively charged surface which allows electrons to flow to the ground through it when illuminated.
- Those parts that remain negatively charged after illumination correspond to parts of the TBC where something was printed.
- **Toner** - A dry mixture of positively charged colouring substance which is then applied to the photoconductive surface.
- Being positively charged, toner will settle where negative charge persists on the surface by the law of attraction of opposite charges.
- The surface then transfers the pattern of toner on it to a sheet of paper.
- **Copy paper** - It has a stronger negative charge that causes the toner to jump on it and then the toner is heated which melts and fuses with the paper.
- This is the paper that rolls out of the photocopying machine, the whole process having been completed in a few seconds.

In practice, the photocopier machine uses a rotating drum instead of a flat surface, and the paper TBC is illuminated by a flashing or stroboscopic light or a moving scanner.

References

[The Hindu| Working of Photocopier Machine](#)

Plastic Pellets

Recently, Plastic pellets were washing up on the beaches of Mumbai and Palghar in Maharashtra due to pellet spills by a transport agency that was carrying plastic pellets.

- **Plastic Pellets** – They are microplastics (nurdles) ranging between 1 millimetre (mm) to 5 mm.
- It is manufactured by petrochemical companies, as a raw material for the plastic industry to manufacture varied products.
- **Pellet spills** – It is leakage of plastic pellets from various sources including production facilities, transportation, storage, and recycling activities.
- It can be categorised as chronic (smaller scale but are continuous) and acute spills (higher scale but once in a while).

Mapping the Global Plastic Pellet Supply Chain, 2023

- It is a report by Fidra, a Scottish non-profit which found that
 - More than 50% of the incidents reported were acute in nature.
 - More than 80% of the spills were caused as a result of leakage from the plastic industry or the transportation partner.
 - Less than 3% of the spills were due to recyclers.

The 3 major exporters of plastic pellets as of 2021 are USA, Saudi Arabia, and South Korea while **India is the 6th largest importer** of primary plastics (in the form of pellets) with a trade value of roughly \$8 billion with its major imports from West Asian countries.

Shipping routes and location of plastic pellet spills between 2021 and 2023



Source: Mapping the Global Plastic Pellet Supply Chain, 2023, Fidra. Redesigned by DTE-CSE

According to the **United Nations Environment Programme (UNEP) report**, more than 13,000 chemicals were used by the plastic industry, of which more than 24% can affect human health but only 1% were regulated by multilateral agreements like the Stockholm Convention, Minamata Convention, and Montreal Protocol.

References

[Down To Earth| Plastic Pellets](#)

Other Important News	
Goa Maritime Conclave (GMC), 2023 <ul style="list-style-type: none"> The 4th edition of GMC, 2023, a biennial event, was conducted recently by the Indian Navy to effectively tackle common maritime challenges in Indian Ocean Region. Theme - Maritime Security in the Indian Ocean Region: Converting Common Maritime Priorities into Collaborative Mitigating Frameworks. Participating countries - Bangladesh, Comoros, Indonesia, Madagascar, Malaysia, Mauritius, Myanmar, Seychelles, Singapore, Sri Lanka, and Thailand. 	
1st Global Conference on Cooperation in Enforcement Matters (GCCEM) <ul style="list-style-type: none"> 1st GCCEM, hosted by the Directorate of Revenue Intelligence (DRI) under Central Board of Indirect Taxes and Customs (CBIC) was held recently in New Delhi. Theme - It takes a Network to fight a Network. Aim - To facilitate sharing of insights, best practices and to serve as a catalyst for enhancing collaboration with Indian Customs' partner Administrations and for building new partnerships. 	
Operation Sesha <ul style="list-style-type: none"> The 4th phase of "Operation Sesha" was launched by Union Finance Minister recently. Agency - Indian Customs in collaboration with Regional Intelligence Liaison Offices (RILOs) Asia-Pacific and RILO Middle-East. Aim - To curb the illegal trade of Timber including Red Sanders. 	
Operation Blue Star <ul style="list-style-type: none"> Operation Blue Star was a military operation carried out by the Indian Army in 1984. The operation's goal was to remove Sikh militants from the Golden Temple, the holy site of Sikhism, in Amritsar, Punjab. Operation Blue Star was divided into 2 parts - Operation Metal (limited to Golden Temple) and Operation Woodrose (launched throughout Punjab). 	
Kambala <ul style="list-style-type: none"> The longest 'kare' (slush track) kambala (buffalo race) is going to be take place in Bengaluru. Every year, starting from November till March, the coastal districts of Dakshina Kannada and Udupi in Karnataka, and Kasargod in Kerala share a common celebration called Kambala. Kambala is a festival dedicated to an incarnation of Hindu God Shiva-Lord Kadri Manjunatha and an annual buffalo race, Kambala is associated with this festival. 	

National Unity Day

- Prime Minister paid tribute to Sardar Vallabhbhai Patel at the Statue of Unity in Gujarat on the birth anniversary of India's first Home Minister on October, 31.
- The birth anniversary of Patel, is celebrated as ***National Unity Day***.
- Statue of Unity was inaugurated on 2018, is the world's tallest statue with a height of 182 metres.

Paintbrush swift butterfly (Baoris farri)

- The paintbrush swift butterfly, rare species in the western Himalayas has been photographed for the first time in Himachal Pradesh recently.
- **Family** - Hesperidae. **Habitat** - Northeast, central and south India, and rare in Uttarakhand.
- **Status** - Legally protected in India under ***Schedule IV*** of the Wildlife (Protection) Act, 1972.
- **Threats** - Habitat loss and scarcity of larval host plants.

PBKnot or PB Rope L

- PBKnot and PB Rope L are *pheromone-based* mating disruption technologies.
- They release sex pheromones that prevent male moths from finding and mating with female moths.
- It reduces the number of eggs laid, which reduces the population of the Pink Boll Worm.
- Pink Boll Worm is a worm that damages parts of the developing cotton fruit by laying eggs on it.