

Geography & Environment

1. Hunga Tonga–Hunga Ha‘apai (HTHH) Volcano:

Type: Submarine stratovolcano in Tonga, part of the Tonga–Kermadec arc formed by subduction of the Pacific Plate beneath the Indo-Australian Plate.

Features: Frequent eruptions, explosive due to viscous andesite and dacite lava.

Location: Tonga, 65 km north of Tongatapu, part of the Ring of Fire.

2. Spot Bellied Eagle Owl (*Ketupa nipalensis*):

Habitat: Tropical and subtropical forests across India, Sri Lanka, Nepal, Bhutan, and Southeast Asia.

Features: Apex predator, nocturnal, Schedule IV under Wildlife (Protection) Act, 1972, and listed in CITES Appendix II.

IUCN Status: Least Concern.

3. Sunkoshi River:

Geography: Tributary of the Koshi River, originating from Zhangzangbo Glacier, Tibet.

Significance: "Sorrow of Bihar" due to flooding; rafting hotspot in Nepal.

4. Koshi River System:

Tributaries: Sun Koshi, Tama Koshi, Dudh Koshi, Indravati, Likhu, Arun, Tamor.

Transboundary: Flows through China, Nepal, and India, drains 45% of Nepal.

Science & Technology

1. Virus-like Particles (VLPs):

Features: Non-infectious, mimic viruses but lack genetic material.

Applications: Vaccines (HPV, Hepatitis B, Malaria) and drug delivery.

2. Nipah Virus:

Transmission: Zoonotic, food contamination, human-to-human.

Symptoms: Respiratory illness, encephalitis.

Outbreak: First in Malaysia and Singapore, 1998-1999.

Cultural Heritage

1. Ikat Design:

Types: Single Ikat (warp/weft dyed) and Double Ikat (both dyed).

Regions & GI Tags:

- Patan Patola (Gujarat, 2013).
- Pochampally Ikat (Telangana, 2005).
- Sambalpuri Ikat (Odisha, 2010).

History: References in 'Lalitavistara Sutra' and Ajanta caves.

Current Affairs

1. CITES (Convention on International Trade in Endangered Species):

India's Membership: Since 1976.

Appendices:

- Appendix I: Prohibits trade of critically endangered species.
- Appendix II: Regulates trade to prevent over-exploitation.
- Appendix III: Protects species under national laws.

2. KAZA Summit 2024:

Leaders opposed lifting the ivory trade ban; highlighted a \$1 billion stockpile.

3. Bank Clinic Initiative:

- By: All India Bank Employees' Association (AIBEA).
- Purpose: Grievance redressal guidance aligned with RBI regulations.

Indian Polity

1. Doctrine of Merger:

Principle: Lower court orders merge into higher court's orders during appeals.

Application: Ensures judicial hierarchy and avoids conflicting decrees.

2. Article 142 of Indian Constitution:

Scope: Supreme Court's extraordinary power to ensure "complete justice."