

Plastic Pollution

❖ Context

- World leaders at a **United Nations conference in Kenya** have agreed to work together in the **biggest-ever push to stem the flood of plastic pollution.**

❖ Key Highlights

- The **U.N. Environment Assembly** has voted to adopt a resolution that paves the way for a **legally binding agreement on plastic pollution by 2024.**
- The vote was unanimous, with almost 200 nations agreeing to create an intergovernmental committee to negotiate the terms of the treaty.

❖ About Plastic Pollution

- **Plastic**
 - Plastic is being used in **everything from packaging the food we eat to making up the fibers** in the clothes we wear.
 - Its applications stretch to building materials and medical masks.
 - But plastic is also **responsible for destroying ecosystems** and polluting waterways.
 - In **1950 the world produced nearly 2 million tons of plastic.**
 - Annual production today is more than **200 times greater.**
 - A landmark study in 2017 found that only **9 percent** of the plastic that has been produced throughout history has been recycled and about **12 per cent has been burned.**
 - The rest has been thrown away — either as litter or in landfills.
- **Plastic Pollution and Marine Life**
 - Plastic that lands in rivers eventually reaches the sea.
 - A study commissioned by the Worldwide Fund for Nature (WWF) found regions like the **Mediterranean and East China Sea had passed critical thresholds of plastic pollution.**
 - Scientists from the Alfred Wegener Institute in Germany documented **harmful impacts of plastic on 88 percent of 297 species studied.**
 - Even if all plastic pollution stopped today, **the amount of microplastic in the oceans would continue to rise** as bigger pieces break down.
 - The researchers have estimated a **four-fold increase of ocean plastic concentrations by 2050** and expect a **50-fold increase of microplastic concentrations by the end of the century.**

• Plastic as Pollutant:

- Across the world, single-use plastics are cheap enough to use and throw away without thinking about ways to reuse it.
- Because the **material doesn't decompose naturally**, plastic that gets into ecosystems stays there for hundreds of years.
- It **can choke fish, entangle birds and leak toxins.**
- Still, plastic does slowly disintegrate.
- **Microplastic and Nano Plastic:**
 - Plastic **breaks down first into microplastics** and then nanoplastics. The names refer to the size of the plastic.
 - Microplastics have been found in some of the most pristine and untouched parts of the planet, from high glaciers to deep oceans, as well as in food.
 - It is unclear what the long-term health effects of eating plastics are — or what levels should be considered dangerous.

India's Abstention in UNHRC

❖ Context

- **India abstained in a vote in the UN Human Rights Council (UNHRC),** on a draft resolution against Russia's invasion of Ukraine.

❖ Key Highlights

- The **47-member Council** voted on a draft resolution on the situation of human rights in Ukraine.
- The resolution was adopted with **32 votes in favour**, two against (Russia and Eritrea) and **13 abstentions**, including India, China, Pakistan, Sudan and Venezuela.
- UNHRC has decided to **urgently establish an independent international commission of inquiry.**
- **India's Stand in UNSC and UNGA**
 - India has abstained on two resolutions on Ukraine in the 15-nation Security Council and one in the 193-member General Assembly.

❖ About UNHRC

- **About**
 - The United Nations Human Rights Council (UNHRC) is a **United Nations body whose mission is to promote and protect human rights around the world.**
 - The Human Rights Council replaced the former United Nations Commission on Human Rights (UNCHR)
- **Formation**
 - 15 March 2006
- **Meetings**
 - UNHRC holds **no fewer than three regular sessions a year**, for a total of at least 10 weeks.

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- **Membership**
 - The Council is made up of **47 UN Member States**.
 - They are **elected by the UNGA** through a direct and secret ballot.
 - Members serve for a period of **three years**.
 - **Not eligible for immediate re-election** after serving two consecutive terms.
- **Seats on the Council are distributed as follows:**
 - African States: 13 seats.
 - Asia-Pacific States: 13 seats.
 - Latin American and Caribbean States: 8 seats.
 - Western European and other States: 7 seats.
 - Eastern European States: 6 seats.
- **Headquarter: Geneva, Switzerland.**

War crimes

❖ Context

- The **International Criminal Court** in Hague has announced that it will open an investigation into possible war crimes committed by Russia in Ukraine.

❖ Key Highlights

- There are specific international standards for war crimes, which are not to be confused with crimes against humanity.
- War crimes are defined as serious violations of humanitarian laws during a conflict.
- The definition, established by the **Rome Statute of the International Criminal Court (ICC)** is derived from the **1949 Geneva Conventions** and is based on the idea that individuals can be held liable for the actions of a state or its military.
- The **UN Office on Genocide Prevention and the Responsibility to Protect** separates war crimes from genocide and crimes against humanity.
- **War crimes** are defined as occurring in a domestic conflict or a war between two states, while **genocide and crimes against humanity** can happen in peacetime or during the unilateral aggression of a military towards a group of unarmed people.
- There is a long list of acts that can be considered war crimes. The taking of hostages, willful killings, torture or inhuman treatment of prisoners of war, and forcing children to fight are some of the more obvious examples.
- But, in practice, there is a **lot of grey area** within that list.
- To decide whether an individual or a military has committed a war crime, international humanitarian law lays down three principles: **distinction, proportionality and precaution**.
- **Proportionality** prohibits armies from responding to an attack with excessive violence.
- **Precaution** requires parties to a conflict to avoid or minimise the harm done to the civilian population.
- **Principle of distinction** says that you have to be constantly trying to distinguish between civilian and belligerent populations and objects.

Neutrality of Switzerland

❖ Context

- Switzerland's Federal council had decided to join EU in imposing sanctions on Russia and its leaders.

❖ Key Highlights

- The nation has been politically neutral since 1815.
- The policy was adopted at the Vienna conference convened to reconstitute the European political order following the defeat of Napoleon.
- 'Permanent neutrality' is a principle of Swiss foreign policy
- It is **not part of EU, NATO, European Economic Area**.
- However, it is **part of EU single market**.
- It became **part of UN in 2002**. It remained politically neutral during WWII, while continuing economic cooperation with both Allied and Axis powers.
- Hitler planned **Operation Tannenbaum** as invasion of Switzerland but was never put to action.
- Swiss government has said that Russia's unprecedented military attack on a sovereign European country was the deciding factor in changing the stance on sanctions now.
- However, this is **not the first time** Switzerland has relaxed its neutrality. During **war in Balkans** and **civil war in Syria**, it had adopted sanctions imposed by EU, even though they were not backed by UNSC.

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News in Between the Lines

Zaporizhzhia Plant



❖ **Context**

➤ Russian forces have attacked the nuclear power plant of Ukraine to capture it.

❖ **Key Highlights**

- The Zaporizhzhia nuclear power plant is **one of Europe’s biggest energy producers, accounting for 25% of the region’s energy needs.**
- Situated at Enerhodar in southern Ukraine, it was **built between 1984 and 1995.** It is the **largest nuclear plant in Europe and fifth largest in the world** in terms of installed capacity. The five largest plants in the world are:
 - Kashiwazaki-Kariwa Nuclear Power Plant, Japan (7965 MW).
 - Bruce Nuclear Generating Station, Canada (6430 MW).
 - Hanul Nuclear Power Plant, South Korea(5908 MW).
 - Hanbit Nuclear Power Plant, South Korea(5899 MW).
 - Zaporizhzhia Nuclear Power Plant, Ukraine(5700 MW).

Indus Waters Treaty (IWT)



❖ **Context**

➤ Pakistan has assured India during the 117th meeting of the Permanent Indus Commission (PIC) that “all necessary actions” will continue to be taken to ensure free flow of Fazilka drain into the Sutlej.

❖ **Key Highlights**

- The discharge of untreated wastewater has been accumulating for the past over five years in Fazilka’s vicinity in Punjab. The problem multiplied when Pakistan blocked the Fazilka drain from entering its territory. Officials say Pakistan blocked the channel due to the presence of a high concentration of pollutants, including untreated sewage in it.

❖ **About the Treaty**

- The PIC comprises Indus Commissioners of both countries.
- During the meeting, technical discussions were held regarding ongoing projects, including **Pakal Dul, Kiru and Lower Kalnai.** The Indian side underscored that all its projects are fully compliant with the provisions of the Treaty and provided technical details
- As per provisions of the Indus Waters Treaty, the **two Commissioners are required to meet at least once every year,** alternately in India and Pakistan. The last meeting was held in 2021 in New Delhi
- **Pakal Dul** is an under construction project on **Marsudar River, tributary of Chenab river** in Kishtwar district. The Lower Kalnai project is proposed in Kishtwar and Doda districts. Under the provisions of the Indus Water Treaty, signed between India and Pakistan in 1960, all the water of the **eastern rivers—Sutlej, Beas, and Ravi—**amounting to around 33 million acre feet (MAF) annually is allocated to **India** for unrestricted use. The waters of **western rivers—Indus, Jhelum, and Chenab—**amounting to around 135 MAF annually have been assigned largely to **Pakistan.**

Asian Infrastructure Investment Bank (AIIB)

❖ **Context**

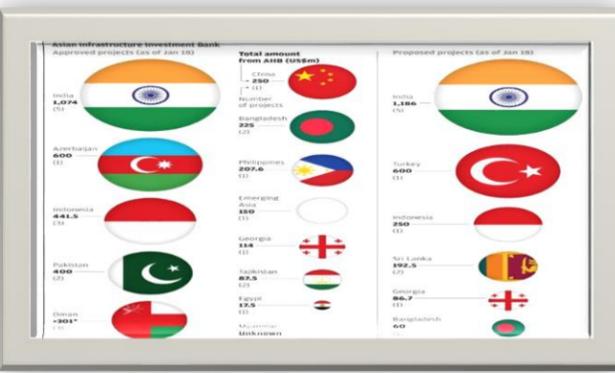
➤ Recently, **Asian Infrastructure Investment Bank (AIIB)** said that it was putting on hold and reviewing all projects in Russia and Belarus.

❖ **About AIIB**

- AIIB is a **multilateral development bank** with a mission to **improve social and economic outcomes in Asia and beyond.**
- **Aims:**
 - By **investing in sustainable infrastructure** and other productive sectors today, it **aims to connect people, services and markets** that over time will impact the lives of billions and build a better future.
- It is **established by the AIIB Articles of Agreement** (entered into force December 2015) which is a multilateral treaty.

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- **Headquarter:**
 - It is headquartered in **Beijing (China)** and began its operations in January 2016.
- **Membership:**
 - There are more than **100 members now**.
- **Voting Rights:**
 - China is the largest shareholder with 26.61 % voting shares in the bank followed by **India (7.6%)**, Russia (6.01%) and Germany (4.2 %).
 - The regional members hold 75% of the total voting power in the Bank.

Kavach

KAVACH-INDIGENOUS AUTOMATIC TRAIN PROTECTION SYSTEM

FEATURES

- ▶ Prevention of Signal Passing at Danger
- ▶ Automatic braking to prevent speeding
- ▶ Auto whistling while approaching level crossing gates
- ▶ Prevention of collision between two locomotives
- ▶ SoS messages during emergency situations
- ▶ Centralized live monitoring of train movements through Network Monitor System

DEPLOYMENT STRATEGY

- First priority** | High Density Routes; New Delhi-Mumbai and New Delhi-Howrah sections
- Second priority** | Highly Used Networks
- Third priority** | Other Passenger High Density Routes
- Fourth priority** | All other routes

KAVACH in 2,000 km of network in 2022-23 & total 34,000 km in subsequent years

❖ Context

➤ Recently, an indigenously developed **Automatic Train Protection System Kavach** showcased on South Central Railway.

❖ About Kavach

- It is India's very own automatic protection system in development since 2012, under the name **Train Collision Avoidance System (TCAS)**.
- It was renamed as Kavach.
- **Mechanism:**
 - It is a **set of electronic devices and Radio Frequency Identification devices** installed in locomotives, in the signaling system as well as the tracks.
 - These devices talk to each other using **ultra high radio frequencies to control the brakes of trains and also alert drivers**.
- **Features:**
 - It Includes the key elements from already existing, and tried and tested **systems like the European Train Protection and Warning System**, and the indigenous Anti Collision Device.
 - It will also carry features of the **high-tech European Train Control System Level-2 in future**.
 - The current form of Kavach adheres to the **highest level of safety and reliability standard called Safety Integrity Level 4**.
- **Significance:**
 - By continuously refreshing the movement information of a train, it is **able to send out triggers when a loco pilot jumps signal**, called Signal Passed at Danger (SPAD), a grave offense in railway operations with respect to safety, and the key to accidents like collision. The devices continuously relay the signals ahead to the locomotive, making it useful for loco pilots in **low visibility, especially during dense fog**.

Karakattam Dance



❖ Context

➤ The **Kerala Nattukala Kshema Sabha (KNKS)**, has demanded that Karakattam be recognised as the **agricultural art form of Kerala**.

➤ KNKS is an outfit that works for the promotion of local art forms in the state.

❖ About Karakattam Dance

- Karakattam is also known as **Kumbakkali in certain parts**.
- Karakattam is a form of folk dance performed at festivals, conferences, roadshows and primarily at Mariamman festivals.
- **Karakattam and agriculture have a link** because, in Kerala after Makarakoythu (harvest season), the Mariamman pooja is in the Medam month and **Mariamman is considered as the goddess of rain**. Its performances are characterized by a lot of swaying movements and joyous banter. The **performers balance a pot on their head**.
- Other highlights include blowing fire, inserting needles into eyes, and keeping balance while holding a bottle parallel to the ground on the performer's back. While the dance form is not dying, it has undergone radical change and adaptation in recent years.



SARAS 3



❖ Context

- SARAS 3 **Radio Telescope**, developed by **Scientists at Raman Research Institute**, refutes recent claim of the discovery of a radio wave signal, from 'cosmic dawn' - birth of First stars, which actually may be a contamination of their measurement.

❖ Key Highlights

- In **2018** a team of researchers from **Arizona State University (ASU)** and MIT in the US claimed detection of the signal (**21-cm wavelength, 1.4 GHz**) emitted by hydrogen atoms from stars emerging in the early universe, using data from the **EDGES (Experiment to Detect the Global Epoch of Reionization Signature)** radio telescope.
- However, the discovery was awaiting confirmation from independent researchers. As detection of the cosmic dawn signal is extremely difficult because:
 - The celestial signal is **exceptionally faint** – 'buried' or 'drowned' in sky radio waves that come to us from the gas in our own Galaxy, the Milky Way, which are a million times brighter. The cosmic signal is in a **radio wavelength band** which is used by numerous terrestrial communications equipment and TV and FM radio stations.
- Developers of SARAS 3 claims that it is one of **the first telescope worldwide to reach the required sensitivity** to detect the signal.
- It was deployed in isolated sites in India to gather celestial radio waves with minimum terrestrial man-made radio interference.
- **Indian scientists** came with a **unique idea in the world to deploy the telescope on a raft on water**. It provided two benefits.
 - **Reducing confusing radio waves** emitted by the very ground beneath radio telescopes. Provide a homogenous medium of high dielectric constant below the antenna **improving sensitivity**.
- However, astronomers still do not know what the actual signal looks like. The team at RRI is planning more observations on remote lakes in India.

❖ Cosmic Dawn Signal

- The signal from Cosmic Dawn is expected to arrive on Earth stretched in wavelength to metres and lowered in frequency by the expansion of the Universe to lie in the radio frequency band **50-200 MHz**.

Swadesh Darshan Awards



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❖ Context

- The **Ministry of Tourism** has constituted **Swadesh Darshan Awards** in different categories. As part of this scheme, **tourism related infrastructure** has been developed at more than 500 tourist destinations.

❖ Key Highlights

- The efforts undertaken by the State Governments, Union Territory Administrations and various implementation agencies.
- The awards will highlight best practices including achievement of planned objectives, innovative approach, adoption of sustainability principals in planning, design and operations, efficient project monitoring, ability to attract private investments in peripheral development and efforts undertaken to ensure optimal operations and maintenance etc.
- To begin with, the Ministry of Tourism has decided to invite entries under the following categories:-
 - Best Tourist Interpretation Centre.
 - Best Log Hut Facility.
 - Best MICE Facility.
 - Best Cafeteria.
 - Best Craft Haat/ Souvenir Shop facility.
 - Best Sound and Light Show.
 - Best Waterfront Development (Beach/ River/ Lake etc.).

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