

NATIONAL GREEN HYDROGEN MISSION

Recently, The Union Cabinet, chaired by the Prime Minister of India, has approved National Green Hydrogen Mission.



About National Green Hydrogen Mission:

The initial outlay for the Mission will be Rs.19,744 crore, including an outlay of Rs.17,490 crore for the SIGHT programme, Rs.1,466 crore for pilot projects, Rs.400 crore for R&D, and Rs. 388 crores towards other Mission components.

- **Aim:** To make India a Global Hub for the production, utilization and export of Green Hydrogen and its derivatives.
- **Ministry of New and Renewable Energy** will formulate the scheme guidelines for implementation of the respective components.

What are the components of the scheme?

- **The Strategic Interventions for Green Hydrogen Transition Programme (SIGHT):** Under this two distinct financial incentive mechanisms will be provided
- Targeting domestic manufacturing of electrolyzers and
- Production of Green Hydrogen
- The Mission will also support pilot projects in emerging end-use sectors and production pathways.

What is Green hydrogen?

- It is the gas produced by splitting water into hydrogen and oxygen using an electrolyzer that may be powered by electricity generated from renewable energy sources.

WHAT ARE MICROPLASTICS?

Scientists from South Korea have recently developed a new water purification system that can quickly and efficiently filter out microplastics.



About Microplastics:

- Microplastics are tiny bits of various types of plastic found in the environment.
- The name is used to differentiate them from “macroplastics” such as bottles and bags made of plastic.

There is no universal agreement on the size that fits this bill — the U.S. NOAA (National Oceanic and Atmospheric Administration) and the European Chemical Agency define microplastic as less than 5mm in length.

What are the types of microplastics?

- There are two categories of **microplastics: primary and secondary.**
- **Primary microplastics** are tiny particles designed for commercial use, such as cosmetics, as well as microfibers shed from clothing and other textiles, such as fishing nets.
- **Secondary microplastics** are particles that result from the breakdown of larger plastic items, such as water bottles.
 - This breakdown is caused by exposure to environmental factors, mainly the sun’s radiation and ocean waves.

HOW TERMITE BEHAVIOUR IS LINKED TO A WARMING WORLD?

According to a study published in Science, the Earth gets warmer, termites will rapidly spread across the world. This could, in turn, lead to a further rise in global temperatures.



About:

- It has found that termites decompose wood at a much **higher rate in warmer conditions.**

- For every 10 degrees Celsius increase in temperature, their decomposition activity goes up by almost seven times.
- According to the study, termites release **carbon from dead wood in the form of carbon dioxide and methane, two of the most important greenhouse gases**. So, an increase in termite population and their faster decomposing activity can cause more greenhouse emissions, resulting in a hotter planet.
- **There are around 3,000 species of termites across the world**, including the ones that consume plant material and even soil. However, the most famous are the wood-eating termites.
- Another research by scientists at the University of Florida found that two Floridian varieties of termites were able to **interbreed during warmer winters and hybridise into new “highly destructive super-termites”**.

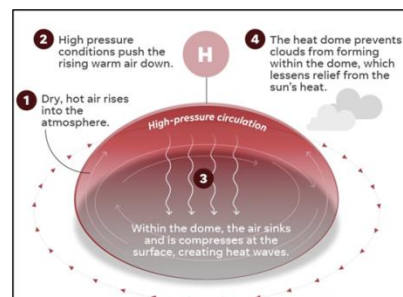
WHAT IS CAUSING THE WINTER HEAT WAVE IN EUROPE?

Why in News?

- Several parts of Europe are witnessing an unprecedented winter heat wave.
- Calling it an “extreme event”, experts said that temperatures increased 10 to 20 degrees Celsius above normal.
- According to a report published in the Washington Post, the continent is experiencing an extreme warm spell because of the formation of a heat dome over the region.

What is a Heat Dome?

- A heat dome occurs **when an area of high-pressure traps warm air over a region**, just like a lid on a pot, for an extended period of time.
- The longer that air remains trapped, the more the sun works to heat the air, producing warmer conditions with every passing day.
- Heat domes generally stay for a few days but sometimes they can extend up to weeks, which might cause deadly heat waves.



- Scientists suggest that any region of high pressure, whether a heat dome or not, forces air to sink and once it reaches the ground, it gets compressed and becomes even warmer.
- Moreover, when air sinks, it gets drier and further raises the temperature of the area.

What is the relationship between heat domes and the jet stream?

- The heat dome's formation is related to the behaviour of the jet stream — **an area of fast-moving air high in the atmosphere.**
- The jet stream is believed to have a wave-like pattern that keeps moving from north to south and then north again.
- When these waves get bigger and elongated, they move slowly and sometimes can become stationary.
- This is when a high-pressure system gets stuck and leads to the occurrence of a heat dome.

Is Climate Change responsible for heat domes?

- Although heat domes are likely to have always existed, researchers say that climate change may be making them more intense and longer.
- They suggest with the rising temperatures, it is expected that the jet streams will become more wavy and will have larger deviations, causing more frequent extreme heat events.

News Summary:

- On the first day of the year, seven countries in Europe recorded their warmest January.
- Temperatures were **at least 10 to 20 degrees Celsius above normal** from France to western Europe.
- Climatologists suggested that the temperatures surged to summer or springtime levels.
 - For example, at Korbielów, a small village in **Poland**, the mercury reached 19 degree Celsius – a temperature the region is more used to in May.
 - It is 18 degree Celsius above the one degree Celsius yearly average for January.

COMPLAINTS UNDER OMBUDSMAN SCHEMES

Why in News?

- The Reserve Bank of India (RBI) has released the Annual Report of the Ombudsman Schemes for the period April 01, 2021 – March 31, 2022.
- As per the report, volume of complaints received under the scheme stood at 4,18,184 in 2021-22, an increase of 9.39 per cent compared to the previous year.

Banking Ombudsman Scheme

- The Banking Ombudsman Scheme is an expeditious and inexpensive forum for bank customers for resolution of complaints relating to certain services rendered by banks.
- The Scheme is introduced under Section 35 A of the Banking Regulation Act, 1949 by RBI with effect from 1995.
- The Banking Ombudsman is a senior official appointed by the Reserve Bank of India to redress customer complaints against deficiency in certain banking services.
- All Scheduled Commercial Banks, Regional Rural Banks and Scheduled Primary Co-operative Banks are covered under the Scheme.

The Reserve Bank - Integrated Ombudsman Scheme (RB-IOS)

- The Reserve Bank - Integrated Ombudsman Scheme was launched in November 2021 by PM Modi.
- The Scheme will provide **cost-free redress of customer complaints** involving deficiency in services rendered by entities regulated by RBI.
 - It comes into picture if the issue has not been resolved to the satisfaction of the customers or not replied within a period of 30 days by the regulated entity.
- The Scheme integrates the existing three Ombudsman schemes of RBI:
 - Banking Ombudsman Scheme, 2006;
 - Ombudsman Scheme for Non-Banking Financial Companies, 2018; and
 - Ombudsman Scheme for Digital Transactions, 2019.
- In addition to integrating the three existing schemes, the Scheme also includes under its ambit Non-Scheduled Primary Co-operative Banks with a deposit size of ₹50 crore and above.

- The Scheme adopts ‘**One Nation One Ombudsman**’ approach by making the RBI Ombudsman mechanism jurisdiction neutral.

News Summary

- RBI said that the volume of complaints received by the ombudsman schemes or consumer education and protection cells during the year 2021-22 increased by 9.39 per cent to 4,18,184.
- Issues related to ATM/debit cards and mobile/electronic banking were the top grounds of complaints received at the Office of Banking Ombudsman (OBO).
- About 90% of the total complaints were received through digital modes, including:
 - the online Complaint Management System (CMS) portal,
 - e-mail, and
 - Centralised Public Grievance Redress and Monitoring System (CPGRAMS).
- The report also said that the rate of disposal of complaints by ombudsmen improved to 97.9% in 2021-22 from 96.6% in 2020-21.

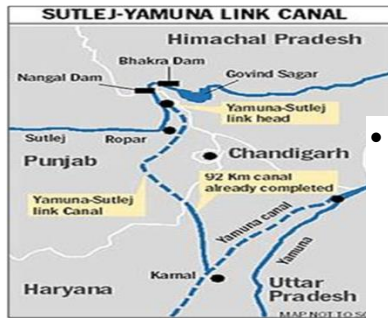
WHAT IS SUTLEJ YAMUNA LINK CANAL (SYL) DISPUTE?

Union Jal Shakti minister has recently convened a meeting of Punjab Chief Minister and Haryana Chief Minister to resolve the issue. However the meeting over the issue remained inconclusive.



About Sutlej Yamuna Link Canal (SYL) Dispute:

- The Sutlej Yamuna Link Canal (SYL), is an under-construction canal to connect the **Sutlej and Yamuna rivers**.
- The decades-old dispute over the canal, which is supposed to carry water from Punjab to Haryana, has its origin in a disagreement over sharing of Ravi-Beas water.
- **The river Beas joins river Sutlej in Punjab.**
- The dispute regarding sharing of river water emerged after **Punjab was reorganised in 1966, and the state of Haryana was created (out of Punjab).**
- After this, **Punjab refused to share waters of Ravi and Beas with Haryana.**



Dispute on water sharing:

- Before the reorganisation in 1955, out of 15.85 million acre feet (MAF) water of Ravi and Beas, the Centre had allocated 8 MAF to Rajasthan, 7.20 MAF to undivided Punjab, 0.65MAF to Jammu and Kashmir.
- In March 1976, when Punjab Reorganisation Act was implemented, the Centre notified fresh allocations, providing 3.5 MAF To Haryana.
- Later, in 1981, the water flowing down Beas and Ravi was revised and estimated to be at 17.17 MAF. Out of this, 4.22 MAF was allocated to Punjab, 3.5 MAF to Haryana, and 8.6 MAF to Rajasthan.
- To enable Haryana to use its share of the waters of the Sutlej river and its tributary, Beas, a canal linking the Sutlej with the Western Yamuna Canal, was planned. The 212-km canal (SYL) was supposed to carry Haryana's share of water to its southern parts.
- 122 km of the canal was to pass through Punjab and the remaining 90 km was to pass through Haryana. Haryana has completed its side of the canal, however, Punjab has continued to delay the construction for over three decades.
- **In 2002 and 2004**, the Supreme Court ordered the completion of the canal in Punjab.
- **In 2004**, the Punjab assembly passed a law, which declared all inter-state agreements related to the sharing of Ravi and Beas waters, as invalid.
- However, **in 2016 the Supreme Court invalidated (cancelled) this law.**

CENTRALLY PROTECTED MONUMENTS MISSING

Why in news?

- According to a submission made in Parliament by the Ministry of Culture, as many as 50 of India's 3,693 centrally protected monuments are missing.

What are centrally protected monuments?

- The centrally protected monuments are sites which have been declared so under the provisions of the **Ancient Monuments and Archaeological Sites and Remains Act, 1958** (AMASR Act).
- The AMASR Act regulates the preservation of monuments and archaeological sites of national and historical importance that are more than 100 years old.
- Under the act, the conservation, preservation and environmental development of the protected monuments is undertaken by the Archaeological Survey of India (ASI).

What are the roles and responsibilities of the Archaeological Survey of India (ASI)?

- ASI, under the Ministry of Culture, is the premier organization for the archaeological researches and protection of the cultural heritage of the nation.
 - It was founded in 1861 by Alexander Cunningham.
- Maintenance of ancient monuments and archaeological sites and remains of national importance is the prime concern of the ASI.
- Besides, it regulates all archaeological activities in the country as per the provisions of the AMASR Act, 1958.
 - According to the provisions of AMASR Act, ASI officials are supposed to **regularly inspect** the monuments to assess their condition.
 - ASI officials can also file police complaints, issue show cause notices for the removal of encroachments, and communicate to the local administration the need for demolition of encroachments.
- It also regulates **Antiquities and Art Treasure Act, 1972**.

How can a monument go missing?

- Several monuments of national importance have become untraceable over the years due to rapid urbanisation, being submerged by reservoirs and dams, difficulties in tracing in remote locations and dense forests, non-availability of their proper location, etc.
- As per the submission made in the Parliament:
 - 14 monuments have been lost to rapid urbanisation,
 - 12 are submerged by reservoirs/dams,
 - 24 remain untraceable.

SILENT VALLEY NATIONAL PARK

Recently, a bird survey conducted at the Silent Valley National Park in the last week of December identified 141 species, of which 17 were new.



Why in news?

- This year's survey marked the 30th anniversary of the first bird survey in Silent Valley.
- Brown wood owl, Banded Bay cuckoo, Malabar woodshrike, White-throated kingfisher, Indian nightjar, Jungle nightjar, and Large cuckooshrike were among the 17 species newly identified in the Silent Valley.

Silent Valley National Park:

- It is a beautiful representation of the last remaining rainforest of Kerala. The forests of the Silent Valley National Park harbour some of the most pristine, unique and highly productive forests in the world.
- Silent Valley is located in the **Southwestern** corner of Nilgiris.
- A perennial river named **Kunthipuzha** is passing through the western side of the park, from north to south direction finally merging into Bharathapuzha.
- **Fauna:** Silent Valley Park is known for many highly endangered species such as lion-tailed macaque, tiger, gaur, leopard, wild boar, panther, Indian Civet and Sambhar.
- The indigenous tribal groups that live within park boundaries include **Irulas, Kurumbas, Mudugas and Kattunaikkars.**

NFDC MERGER: IN UNIFIED NATIONAL FILM CORPORATION, A THEATRE OF THE ABSURD

Context

- The central government's documentary and newsreel-making body - Films Division (FD), established in 1948, has been merged with the National Films Development Corporation

(NFDC), a public sector undertaking (PSU) working under the Information and Broadcasting (I&B) Ministry.

- Besides FD, the Children’s Film Society of India (CFSI), the Directorate of Film Festivals (DFF) and the National Film Archive of India (NFAI) will also henceforth come under NFDC’s umbrella, owing to duplicity of work performed by these bodies.

About NFDC And Other Film Media Units to be Merged With NDFC

- **National Film Development Corporation (NFDC):**
 - A PSU established in 1975, its mandate was to finance, produce, and distribute feature films, and to promote filmmakers outside the mainstream film industry.
 - It was declared a loss-making asset by NITI Aayog in 2018, and its closure was proposed in the Parliament. However, with the other bodies now being merged with NFDC, it is now the “umbrella organisation” with 4 broad verticals under which institutes should.
- **Films Division (FD):**
 - Established in 1948, it was the largest moving-image repository and audio-visual record of Indian history with following mandate:
 - To create public service awareness films
 - To film the decolonisation and nation-building process
 - To produce and distribute newsreels and documentary films
 - FD today has more than 8,000 newsreels, documentaries, short films and animation films on historical events and political figures, including rare works of stalwarts like Satyajit Ray, M F Husain, Mani Kaul, Pramod Pati.
- **Directorate of Film Festivals (DFF):** It was established in 1973, and tasked with cultural exchange, promoting Indian cinema worldwide, organising the National Film Awards and Dadasaheb Phalke Awards, the Mumbai International Film Festival, and the International Film Festival of India in Goa.
- **National Film Archive of India (NFAI):** Established in 1964 under renowned curator P K Nair, it was tasked with tracing, acquiring, and preserving the heritage of fiction cinema in India.



CROSS & CLIMB ROHTAK



- **Children’s Film Society of India (CFSI):** Formed in 1955, it was tasked with producing children’s films and value-based entertainment for underprivileged children in small towns and rural areas.

Conclusion

- The development of the audio-visual sector requires industry friendly policies, collaboration and regular interaction between the Government and industry stakeholders.
 - In order to make India a global content hub, the proposed move should further unleash the potential of the media and entertainment sectors while addressing the concerns of relevant stakeholders.
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