

August - 31

TNPSC BITS

- ❖ Indian badminton player HS Prannoy secured a bronze medal in the men's singles at the BWF World Badminton Championships 2023, held at Denmark.
 - This achievement marked Prannoy as the fifth Indian men's singles player to win a medal at the BWF World Badminton Championships.
- ❖ After Delhi and Pune, Kolkata becomes 3rd Indian city to get air quality early warning system (AQEWS).
 - It is developed by the Indian Institute of Tropical Meteorology (IITM).
- ❖ Neeraj Chopra made history by winning the gold medal in the men's javelin throw event at the World Athletics Championships held in Budapest, Hungary.

NATIONAL

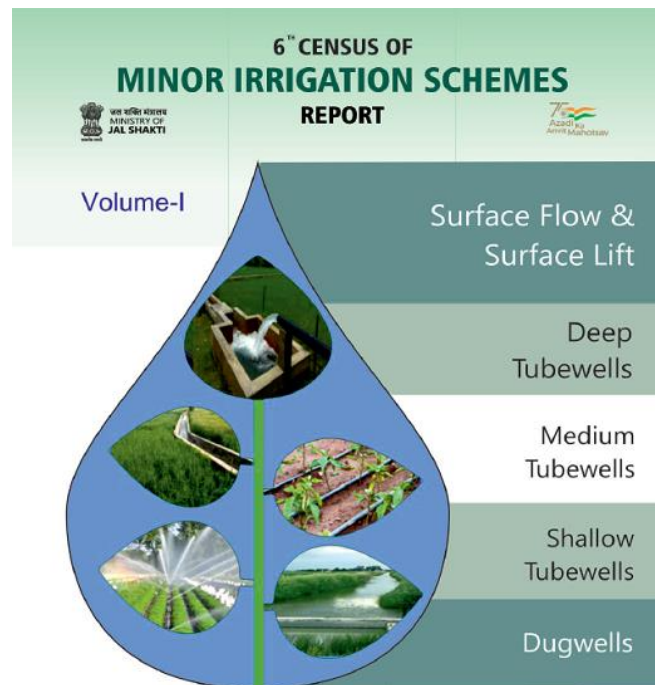
National Award for e-Governance 2023



- ❖ SVAMITVA Scheme of Ministry of Panchayati Raj has been conferred with the prestigious National Award for e-Governance 2023 (Gold).
- ❖ This is awarded under 'Application of Emerging Technologies for Providing Citizen Centric Services' at the 26th National Conference on e-Governance (NCeG).
- ❖ SVAMITVA stands for 'Survey of Villages Abadi and Mapping with Improved Technology in Village Areas'.
- ❖ National Conference on e-Governance (NCeG) was organised on the theme 'Viksit Bharat, Empowering Citizens'.
- ❖ The National e-Governance Awards were presented under 5 categories

- Government process re-engineering for digital transformation,
- Application of emerging technology for providing citizen-centric services,
- District-level initiative for e-Governance,
- Research on citizen-centric services by academic and research institutions, and
- Application of emerging technology in e-Governance by start-ups.

6th census on Minor irrigation scheme

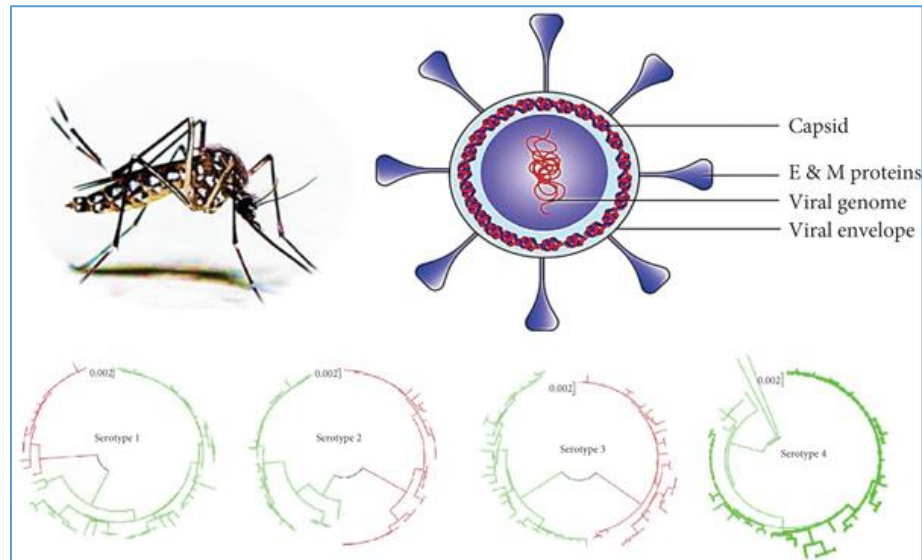


- ❖ The Ministry of Jal Shakti releases the 6th Census Report on Minor Irrigation (MI) Schemes.
- ❖ Out of 23.14 million MI schemes, 21.93 million (94.8%) are Ground Water and 1.21 million (5.2%) are Surface Water Schemes.
- ❖ Uttar Pradesh has possessed the largest number of MI Schemes, followed by Maharashtra, Madhya Pradesh and Tamil Nadu.
- ❖ The census was conducted under the centrally sponsored scheme “Irrigation Census”.

Higher temperature and dengue virus

- ❖ A team of researchers at Rajiv Gandhi Centre for Biotechnology (RGCB) has found that the Dengue virus can become more virulent at higher temperatures.

- ❖ The dengue becomes more severe in animal models when grown in mosquito derived cells exposed to higher temperatures.
- ❖ The study will help to predicting and mitigating the severity of Dengue outbreaks, particularly in the context of global warming and its potential effects on infectious disease dynamics.



Lead poisoning in India

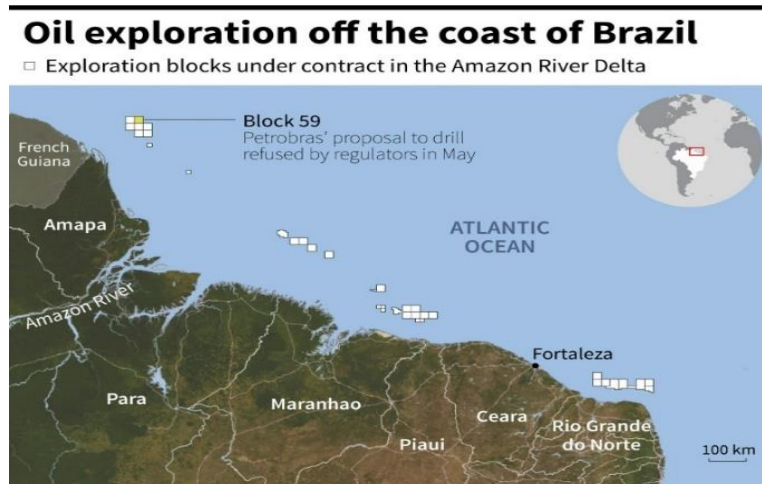
LEAD FOUND IN PATNA AND SURROUNDING AREAS		
<p>Mainly in places with open recycling of old batteries without safety measures.</p> <p>In soil of areas where car/bike/inverter batteries are repaired</p> <p>Specific locations Karmalichak, Kankarbagh, Hajipur, Khemnichak.</p>	<p>Effects of lead exposure</p> <ul style="list-style-type: none"> • Memory loss • Loss in coordination and negative speech development. • Intelligence loss in children. • Stomach pain, numbness, fatigue and weight loss • Disability, may result in death at high doses 	<p>How to reduce lead exposure</p> <ul style="list-style-type: none"> • Wash hands and face frequently. • Keep your house clean with wet mopping and cleaning. • Clean dishes thoroughly. • Take extra precautions in lead-contaminated areas. • Clean vehicle interiors to remove dust. • Avoid walking barefoot in dusty areas. • Use unpolluted clean soil cover for yards.
<p>Major sources of lead</p> <p>Lead acid batteries: Car batteries, dirty recycling practices contaminate neighborhood, spices, turmeric and chilli (vibrant yellow and red added for colour and weight), glazing on artisanal pottery and aluminum pots</p>		

- ❖ A 2021 study estimated that more than half of our children (close to 20 crore) have lead levels in their blood greater than 5 micrograms per decilitre ($\mu\text{g}/\text{dL}$).
- ❖ According to the World Health Organisation (WHO), any level above 5 $\mu\text{g}/\text{dL}$ is “a trigger for a thorough review of the ways in which a person is being exposed to lead and for action to reduce or end this exposure.”
- ❖ Children are the most vulnerable.

- ❖ Lead poisoning accounts for a fifth of the learning gap between rich and poor countries.
- ❖ The consequences of lead poisoning range from neurological impairments and learning disabilities to stunted growth and organ damage.
- ❖ Despite being a recognised global concern, lead poisoning in India remains unaddressed.

INTERNATIONAL

Oil drilling Amazon



- ❖ Ecuadorians voted against the oil drilling of a protected area situated within Yasuni National Park.
- ❖ It is one of the world's most biodiverse regions.
- ❖ The area is inhabited by two uncontacted tribes - Tagaeri and Taromenani.
- ❖ In 1989, Yasuni was designated as a world biosphere reserve by UNESCO.
- ❖ The outcome represents a significant blow to current government which advocated for oil drilling, asserting that its revenues are crucial to the country's economy.

SCIENCE AND TECHNOLOGY

SeamlessM4T

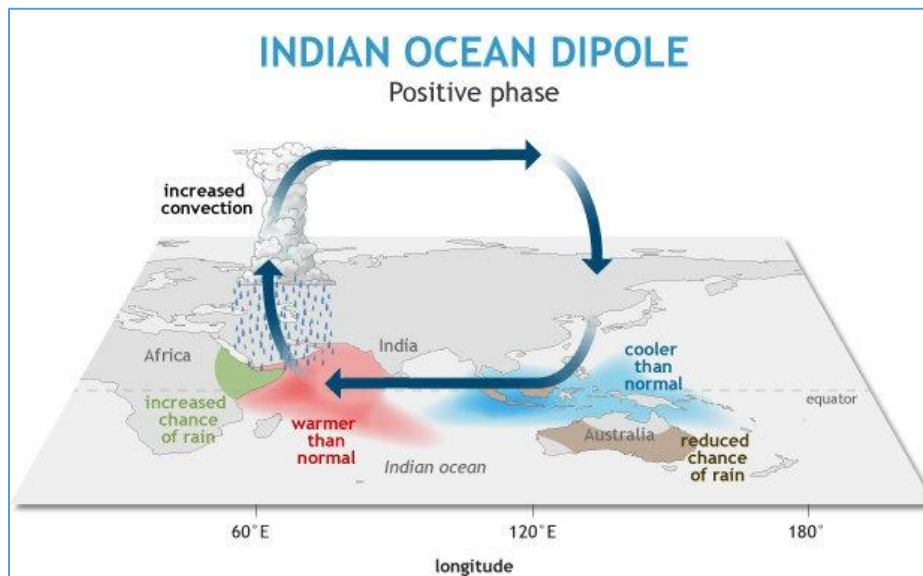
- ❖ Meta unveiled their new artificial intelligence tool called as Seamless M4T.
- ❖ A multimodal AI model capable of speech recognition and speech-to-text translation for nearly 100 different languages.

- ❖ SeamlessM4T is the first all-in-one multilingual multimodal AI translation and transcription model.
- ❖ This single model can perform speech-to-text, speech-to-speech, text-to-speech, and text-to-text translations for up to 100 languages depending on the task.



ENVIRONMENT

Indian Ocean Dipole - positive



- ❖ A report by the Australian Bureau of Meteorology highlights that the Indian Ocean Dipole (IOD) index has exceeded the positive threshold.
- ❖ IOD refers to the shift in sea-surface temperatures from warm to cool in the Indian Ocean basin to the South of Sri Lanka.
- ❖ Warmer in the western side of the basin is referred to as a positive IOD event, while the reverse indicates a negative event.

- ❖ A positive IOD event has boosted the performance of India's South-West monsoon.
- ❖ IOD index must remain above the threshold for a sustained period before it can declare a positive event.

Mass leaf death



- ❖ A recent study published in the Nature journal highlights new dangers posed by climate change to tropical forests.
- ❖ The study suggests that rising temperatures could lead to a phenomenon known as “mass leaf death”.
- ❖ This denotes that the leaves of tropical trees die or cease photosynthesis due to extreme heat.
- ❖ Even small temperature changes brought on by climate change could significantly impact plant species.
- ❖ The study found that some tropical regions have experienced an average temperature increase of 0.5 degrees Celsius per decade.
- ❖ If individual leaf temperatures surpass a critical threshold (around 46.7 degrees Celsius), photosynthesis stops, and leaves may die if the exposure to such temperatures is prolonged.
- ❖ The study warns that prolonged heat exposure could lead to the collapse of tropical forests.

Emperor Penguins

- ❖ A recent study conducted by researchers from the British Antarctic Survey reveals that emperor penguins are facing a grave threat of “quasi extinction” due to a rapid reduction in sea ice.

- ❖ They are the iconic symbol of Antarctica ecosystem.
- ❖ The study found that colonies of emperor penguins failed to breed at an unprecedented level.
- ❖ The study predicts that if current global warming trends continue, 90% of emperor penguins could be “quasi extinct” by the end of the century.
- ❖ Emperor penguins rely entirely on stable sea ice ("land-fast" ice) for breeding and nurturing their young.
- ❖ The shrinking sea ice caused early abandonment of breeding sites is preventing chicks from developing waterproof feathers.



IMPORTANT DAYS

International Whale Shark Day 2023 - August 30



- ❖ This day aims to raise awareness about the plight of whale sharks, the largest fish in the world.

- ❖ The whale shark (*Rhincodon typus*) is the largest fish on Earth and a keystone species in marine ecosystems.
- ❖ It can grow to a length of approximately 18 metres and weigh as much as 21 tonnes.
- ❖ They are ovoviviparous – they give birth to live young rather than lay eggs.
- ❖ It is listed as Endangered in International Union for Conservation of Nature (IUCN) Red List.

International Day for People of African Descent 2023 - August 31

- ❖ This day aims to celebrate the enormous contribution of the African diaspora in the field of human endeavour.
- ❖ 2015-2024 period was declared as the International Decade for People of African Descent.
- ❖ The initiative is steamed out of the United Nation’s commitment to combat racism and discrimination in 2021.

