Sustainable Cities Integrated Approach Pilot Project (SC-IAP)

❖ **Context**
  ➢ **UN-Habitat** has identified **multi-hazard vulnerabilities, urban sprawl, weak urban mobility** and **"green-blue disconnect"** as the pressing issues for Jaipur city, under one of the components of the **SC-IAP.**

❖ **Key Highlights**
- The component known as "**Sustainable Urban Planning And Management**" is being implemented in Rajasthan in collaboration with the Jaipur Development Authority and Jaipur Greater Municipal Corporation.
- Jaipur has received an overall sustainability rating of three on the **Urban Sustainability Assessment Framework (USAF)** under the component.

❖ **About the SC-IAP**
- It is an **integrated program being financed by Global Environment Facility (GEF).**
- It consists of two tracks:
  - **City-level projects in 27 cities across 11 countries**, with around US$140 million in GEF grant funding. Each country is supported by one or several implementing agencies to manage the various projects in the participating cities.
  - **The Global Platform for Sustainable Cities (GPSC)**, led by the World Bank with US$10 million in GEF grant funding.
- The project addresses following key **sustainability issues** faced by cities:
  - **High sprawl of urban areas** leading to severe environmental, social, and economic problems.
  - **Limited efficiency of urban structure** with consequent economic losses.
- **Increased vehicles** in shrinking transportation networks, leading to pollution, and a waste of man-hours for commuting purposes.
- **Low environmental awareness** of urban population resulting in unsustainable lifestyle.

❖ **Aim & Components:**
- Its aim is to build the resilience of pilot cities through following components:
  - **Integrated urban planning and management** - *being spearheaded by UN Habitat.*
  - **Investment Projects and Technology Demonstration.**
  - **Partnerships, Capacity Building and Knowledge Management.**

❖ **Implementation in India:**
- In India, it is being implemented by **United Nations Industrial Development Organisation (UNIDO)** with funding assistance from the **Global Environment Facility (GEF)** and in close cooperation with:
  - Ministry of Housing and Urban Affairs **(MoHUA).**
  - Municipal Corporations of **Jaipur, Bhopal, Mysuru, Vijayawada and Guntur.**
  - State Governments of Rajasthan, Madhya Pradesh, Karnataka and Andhra Pradesh.

IISC's TRNG

❖ **Context**
  ➢ A team at the Department of **Electrical Communication Engineering (ECE),** Indian Institute of Science (IISc) has developed a **True Random Number Generator (TRNG).**

❖ **Background**
- Encrypted information can be decoded only by authorised users who have access to a **cryptographic 'key'.**
- But the key needs to be **unpredictable** and, therefore, randomly generated to resist hacking. The **strength of the encryption depends on the quality of random number generation.**
- Cryptographic keys are typically generated in computers using **pseudorandom number generators**, which rely on mathematical formulae or pre-programmed tables to produce numbers that **appear random but are not**.

❖ **About IISC's Device**
- In IISc's TRNG device, **random numbers are generated using the random motion of electrons.**
- It consists of an **artificial electron trap** constructed by stacking atomically-thin layers of materials like **black phosphorus and graphene.**
- The current measured from the device increases when an electron is trapped, and decreases when it is released.
- **Since electrons move in and out of the trap in a random manner, the measured current also changes randomly.**
- The **timing of this change determines the generated random number** as **one cannot predict exactly at what time the electron is going to enter the trap.**
- **Min-entropy** is a parameter used to measure the performance of TRNGs. Its value ranges from 0 (completely predictable) to 1 (completely random). The device from the IISC's lab showed a record-high min-entropy of 0.98.
- The device can help improve data encryption and provide improved security for sensitive digital data such as credit card details, passwords and other personal information.

News in Between the Lines

Jamui: India's Largest Gold Ore Reserve

❖ **Context**
➤ The **Bihar** government has decided to accord permission for exploration of the "**country's largest**" **gold ore reserve** in **Jamui district.**

❖ **Key Highlights**
- Around **222.88 million tonnes of gold ore reserves** are present in areas such as **Karmatia, Jhajha and Sono** of the district.
- As per the National Mineral Inventory, **the total resources of primary gold ore in the country as on 1.4.2015 are estimated at 501.83 million tonnes** with **654.74 tonnes of pure gold metal.**
- Of this, **Bihar holds** the highest share of India's gold ore which amounts to **44%** containing **37.6 tonnes** of the gold metal.
- **India imported 651.24 tonnes of gold in the FY 2020-21.**
- The **USA** ranks first in the world in terms of gold reserves, followed by Germany and Italy. **China** is the largest producer of gold in the world.

Rare Bacteria In Antarctica

❖ **Context**
➤ Scientists at the **University of Chile** had collected several samples from the Antarctica Peninsula from 2017 to 2019.

❖ **Key Highlights**
- They have found a bacteria with genes that give them **natural antibiotic and antimicrobial resistance** and have the **potential to spread out** of the polar regions.
- The **Pseudomonas bacteria** is one of the predominant bacteria groups in the Antarctic Peninsula.
- Though **not pathogenic**, they can be a source of '**resistance genes'**, which are not stopped by common disinfectants such as copper, chlorine or quaternary ammonium.

AKRUTI

❖ **Context**
➤ The **Nuclear Power Corporation of India Limited (NPCIL)** is going to launch the initiative in the villages surrounding **Kudankulam Nuclear Power Project (KKNPP)**.

❖ **Key Highlights**
- The initiative was earlier introduced in 16 village panchayats near the **Tarapur Atomic Power Station (TAPS).**
- Under the **Advanced Knowledge and Rural Technology Implementation (AKRUTI)** programme, technologies are being taught to the younger generation and the **unemployed youth** to make them entrepreneurs.
- These new, user-friendly and cost-effective technologies are being devised by **Bhabha Atomic Research Centre (BARC)**, in the fields of nuclear science, radioisotopes, industry, health and agriculture.
- One of the AKRUTI's interesting technology transfers is the cost-effective **foldable dryer**, which can be used for drying fruits, vegetables and fish. Since the KKNPP is surrounded by **13 coastal hamlets**, this type of dryer may prove to be a boon to the fishermen.

INS Gomati Decommissioned

❖ **Context:**
➤ **INS Gomati** was decommissioned at the **Naval Dockyard in Mumbai** recently, in an **elegant, solemn and poignant** ceremony.

❖ **Key Highlights:**
- INS Gomati derives her name from the **vibrant river Gomti** and was commissioned on 16 April 1988.
- The third ship of the Godavari class **guided-missile frigates, INS Gomati** was also the oldest warrior of the Western Fleet when decommissioned.

Face to Face Centres
DELHI MUKHERJEE NAGAR: 9205274741, 42 | **LAXMI NAGAR :** 9205212500, 9205962002 | **RAJENDRA NAGAR:** 9205274743 | **UTTAR PRADESH PRAYAGRAJ:** 0532-2260189, 8853467068 | **LUCKNOW** (ALIGANJ): 0522-4025825, 9506256789 | **LUCKNOW** (GOMTI NAGAR): 7234000501, 7234000502 | **GREATER NOIDA:** 9205336037, 38 | **KANPUR:** 7887003962, 7897003962 | **GORAKHPUR :** 7080847474, 9161947474 | **ODISHA** BHUBANESWAR: 9818244644/7656949029

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- During her service, she participated in **Operations Cactus, Parakram and Rainbow**, and several bilateral and multinational naval exercises.
- For her remarkable spirit and stellar contribution to national maritime security, she was twice awarded the **coveted Unit Citation, once in 2007-08 and again in 2019-20.**
- After her decommissioning, the ship's legacy will be kept alive in an open air museum being set up on by the **picturesque banks of the eponymous river Gomti in Lucknow** where several of her combat systems will be displayed as military and war relics.

Import Of Paper Under Compulsory Registration From October 1

❖ **Context:**
➢ The Government has brought the import of paper under compulsory registration from the 1st of October 2022.

❖ **Key Highlights:**
- The import policy of major paper products has been amended from **'Free' to Free subject** to compulsory registration under **Paper Import Monitoring System'.**
- A notification to this effect has been issued by the **Directorate General of Free Trade** recently.
- This order shall be applicable on a range of paper products, such as **newsprint, handmade paper, wallpaper base, duplicating paper, coated paper, uncoated paper, Litho and offset** paper.
- All imports arriving on or after **1st of October** this year shall be governed by this policy.
- Paper products **like currency paper, bank bonds and cheque paper and security printing paper** have been excluded from this policy change.
- **Significance:** The move will also go a long way in promoting Make In India and Aatmanirbhar Bharat in this category.

Jharkhand To Get Who Award For Tobacco Control

❖ **Context:**
➢ Recognising its efforts in controlling tobacco consumption, the **World Health Organization** (WHO) has selected Jharkhand for the **World No Tobacco Day (WNTD) Award-2022.**

❖ **Key Highlights:**
- Stata Tobacco Control Cell of the Health Department will receive the award on the occasion of **World No Tobacco Day in New Delhi on May 31.**
- **National Tobacco Control Programme** (NTCP) was launched in Jharkhand in 2012 when the tobacco prevalence rate in the State was **51.1 per cent**, of which 48 per cent were smokeless users, according to the Global Adult Tobacco Survey (GATS)-1 report.
- The GATS-2 report, which was published in 2018, said tobacco users came down **to 38.9 per cent in the State, of which 35.4 % were smokeless users.**
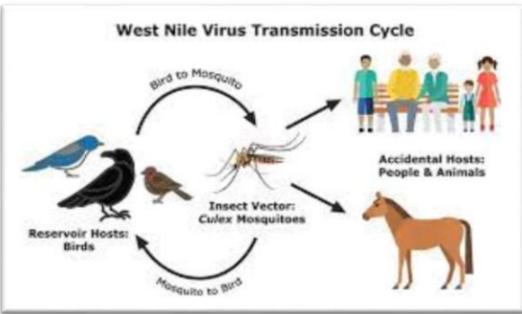
West Nile Virus

❖ **Context:**
➢ The Kerala health department is on alert after the death of a 47-year-old from **Thrissur** due to the **West Nile Virus.**

❖ **Key Highlights:**
- The West Nile Virus is a mosquito-borne, **single-stranded RNA virus.**
- According to the WHO, it is "a member of the **flavivirus genus and belongs to the Japanese** Encephalitis antigenic complex of the family Flaviviridae".
- **Culex species** of mosquitoes act as the principal vectors for transmission.
- It is transmitted by infected mosquitoes between and among humans and animals, including birds, which are the reservoir host of the virus.
- WNV can also spread through **blood transfusion**, from an infected mother to her child, or through **exposure to the virus in laboratories.**
- It is not known to spread by contact with infected **humans or animals.**

Face to Face Centres

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- To date**, no human-to-human transmission** of WNV through casual contact has been documented, says the WHO.
- ❖ **Symptoms:**
  - The disease is asymptomatic **in 80% of the infected people**.
  - In these 20% cases, the symptoms include fever, headache, fatigue, body aches, nausea, rash, and swollen glands.
  - Severe infection can lead to encephalitis, meningitis, paralysis, and even death.

Bhil Pradesh

- ❖ **Context**
  - ➢ There is rising demand for a **"Bhil Pradesh",** a separate state for tribal people in western India.
- ❖ **Key Highlights:**
  - The **Bharatiya Tribal Party (BTP)**, a political party based in Gujarat, envisions **Bhil Pradesh as a separate state** carved out of **39 districts** spread over four states: 16 in Gujarat, 10 in Rajasthan, 7 in Madhya Pradesh & 6 in Maharashtra.
  - **Bhil social reformer** and spiritual leader **Govind Guru** first raised the demand for a separate state for tribals back in 1913 after the **Mangarh massacre.**
  - **Concern:** After the division of states, tribals in the region got scattered and their voices suppressed,as a result, most schemes related to their development have not benefited them.
  - **Bhils or Bheels** are an **Adivasi ethnic group** in West India.
  - Bhils are one of the **largest tribal group** in India.
  - They speak the **Bhil languages.**

Bilateral Security And Defence Cooperation INDIA-JAPAN

- ❖ **Context**
  - ➢ **India and Japan** agreed to further enhance **bilateral security** and **defence cooperation,** including in the area of **defence manufacturing**.
- ❖ **Key Highlights**
  - India highlighted the steps taken by it to improve **ease of doing business**, logistics through the **'Gati Shakti'** initiative and urged Japan to support greater investments by Japanese companies in India.
  - Such investments would help in creating resilient **supply chains** and would be **mutually beneficial.**
  - India appreciated that Japanese companies are increasing their investments in India and that **24 Japanese companies** had successfully applied under the various **Production Linked Incentive schemes.**
  - Both Countries noted the progress in implementation **of Mumbai-Ahmedabad High Speed Rail project** and welcomed the signing of exchange of notes of the **3rd tranche of loan for this project.**
  - Also agreed to **deepen cooperation** in the area of **Clean Energy** including **green hydrogen.**
  - Concurred that the **India-Japan Act East Forum** was useful in prioritising development of India's **North East Region.**
  - Agreed to encourage greater collaboration between **private sectors** of both sides in the development of **next generation communication technologies.**

IAF Ranked Third In World Air Power Index-2022

- ❖ **Context**
  - ➢ The **World Air Power Index** ranks **India at the third position** after **US** and **Russia.** It has beaten the **Chinese Air force** and the **French Air force.**
- ❖ **Key Highlights:**
  - **IAF** has achieved this position by beating all the countries of the world in terms of the **total combat capability** of **various air services.**
  - The **'TrueValue Rating' (TvR)** helps **WDMMA** differentiate each power based on overall strength and factors such as **modernization, logistic support, and attack, and defense capabilities** from which **WDMMA generates its report**.

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