Prelim Bits 27-03-2022 & 28-03-2022 | Daily UPSC Current Affairs

Ketti Valley

Ketti stream, which flows through the Ketti valley, is getting choked with plastic waste and glass bottles being thrown into it.

- One of the largest valleys in the world, the 7,000-ft-deep Ketti Valley extends from the plains of Coimbatore to the Mysore Plateau.
- Also known as **Switzerland of Nilgiris**, the Ketti Valley is the largest valley in the Nilgiris.
- From this valley, a breathtaking view of 14 neighbouring villages - mostly inhabited by the Toda and Badagas - can be seen.
- Ketti village is the gateway to the valley.
- **Ketti stream** flows through the Ketti valley into the Kattery Dam.
- From Kattery dam, it flows through the Kattery falls and eventually drains into Bhavani River downstream.
- Apart from the copious amount of agricultural runoff that makes its way into the stream, plastic and glass bottles are also thrown into it from the villages and human settlements that are located along its course.
- The consequences of the build-up of plastic waste in the stream are felt in the Kattery Dam.

Reference

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2. https://www.incredibleindia.org/content/incredible-india-v2/en/destinations/ooty/ketti-valley.html
3. https://www.trawell.in/tamilnadu/ooty/ketti-valley

Artemis- I Programme

The National Aeronautics and Space Administration (NASA) has rolled out its Artemis I moon mission to the launchpad for testing at the Kennedy Space Centre in Florida, United States.

- NASA's Artemis mission is named after the Greek Goddess of the moon, and she twin sister of Greek God Apollo.
- Artemis I is an **uncrewed space mission.** It is the first of NASA's deep space exploration systems.
- **Purpose** - With the Artemis programme, NASA aims **to land humans on the moon by 2024**, and also plans to land the first woman and first person of colour on the moon.
- NASA will establish an **Artemis Base Camp** on the surface and a gateway in the lunar orbit to aid exploration by robots and astronauts.
- The gateway is a critical component of NASA's sustainable lunar operations and will serve as a multi-purpose outpost orbiting the moon.

- **Space Launch System** (SLS) - the world's most powerful rocket - will be used to launch the spacecraft. It will travel 2,80,000 miles from the earth for over 4 to 6 weeks during the course of the mission.
- [The SLS rocket has been designed for space missions beyond the low-earth orbit and can carry crew or cargo to the moon and beyond.]
- The SLS will deploy the interim cryogenic propulsion stage (ICPS) that will give Orion the thrust needed to leave the earth's orbit and travel towards the moon.
- [ICPS is a liquid oxygen/liquid hydrogen-based propulsion system.]
- It will fly around 100 km above the surface of the moon and use its gravitational pull to propel Orion into an opposite deep orbit around 70,000 km from the moon, where it will stay for approximately 6 days.
- **Orion spacecraft** is going to remain in space without docking to a space station, longer than any ship for astronauts has ever done before.
- The aim of the exercise is to collect data and to allow mission controllers to assess the performance of the spacecraft.
- The spacecraft will communicate with the control centre back on Earth through the deep-space network.
- To re-enter the earth's atmosphere, Orion will do a close flyby within less than 100 km of the moon's surface and use both the service module and the moon's gravity to accelerate back towards the earth.
- The mission will end with the spacecraft's ability to return safely to the earth.

Other space agencies involved in Artemis	**Purpose**
Canadian Space Agency	To provide advanced robotics for the gateway.
European Space Agency	To provide the International Habitat and the ESPRIT module that will deliver additional communications capabilities among other things.
Japan Aerospace Exploration Agency	To contribute habitation components and logistics resupply.

- **Significance** - Eventually, the learnings from the Artemis programme will be utilised to send the first astronauts to Mars.
- NASA plans on using the lunar orbit to gain the necessary experience to extend human exploration of space farther into the solar system.

Reference

1. https://www.thehindu.com/sci-tech/the-artemis-programme-nasas-new-moon-mission/article65237662.ece
2. https://www.nasa.gov/specials/artemis/

C40 Cities Network

Maharashtra has launched the Mumbai Climate Action Plan (MCAP) in partnership with the C40 Cities Network.

Mumbai Climate Action Plan is essentially designed to reduce emissions and meet the climate goals outlined in the Paris Agreement to limit global warming to 1.5 °C.

- Found in 2005, the C40 Cities Climate Leadership Group is an association of 97 cities from

around the world C40.
- It is a global network of mayors aimed at fighting climate change and reducing greenhouse gas emissions, thus mitigating climate risks.
- The group represents one-twelfth of the world population and a quarter of the global Gross Domestic Product (GDP).
- The goal of the C40's initiative is to **reduce the emissions of its member cities to half within a decade**.
- Membership to the group comes from **performance-based requirements**, not membership fees.
- C40's Leadership Standards set the minimum requirements for all member cities and ensure the integrity of C40 as a network of climate leaders.
- **Five Indian cities** are currently a part of the C40 network. These are Delhi, Kolkata, Chennai, Bengaluru, and Mumbai.

Reference

1. https://www.thehindu.com/news/cities/mumbai/explained-what-is-the-mumbai-climate-action-plan/article65231102.ece?homepage=true
2. https://www.c40.org/about-c40/

Causes of Maternal Mortality

According to the latest report of the Registrar General of India (RGI), the Maternal Mortality Ratio in India has reduced by 10 points - from 113 in 2016-18 to 103 in 2017-19.

> The World Health Organisation describes maternal death as a death from any cause related to or aggravated by the pregnancy or its management, excluding accidental or incidental causes, during pregnancy and childbirth or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy.

- Maternal Mortality Rate (MMR) is defined as the number of maternal deaths during a given time period per 100,000 live births during the same time period.
- With this steady decline, India is on track to achieve the UN's Sustainable Development Goal (SDG) target to reduce the maternal mortality ratio to less than 70 per 100,000 live births by 2030.
- Kerala, Maharashtra, Telangana, Tamil Nadu, Andhra Pradesh, and Jharkhand have already achieved the SDG target, with the number of deaths as low as 30 in some states.
- National Health Mission aims at reducing the MMR to 1/1000 live births.
- **Causes -** Maternal mortality is a measure of the reproductive health of women in an area.
- According to the UNICEF, the major causes for maternal mortality are Haemorrhaging (severe bleeding), infections, high blood pressure during pregnancy, anaemia, complications from delivery, and unsafe abortions.
- A large number of these issues can be alleviated with proper medical support, which is sometimes not easy to access. These complications are a result of compounded social, cultural and medical factors.
- Early pregnancy between 15 and 19 years of age, when the adolescent girls are themselves growing, can lead to numerous complications that often result in the death of the mother.
- Child marriage, even though declared illegal in India, aggravates cases of pregnancy-related complications in young girls.
- Other causes that result in maternal deaths are lack of necessary medical care during

childbirth or financial constraints to access medical care.

- **Reducing MMR -**Regular collection and review of data from Maternal Death Surveillance and Response (MDSR) has helped the government plan corrective measures to reduce maternal mortality over the years.
- The collection of data is a structured procedure starting at the block level and moving up to districts and states.
- States have been structured into three groups based on the frequency of maternal deaths: high MMR, moderately high MMR and low MMR.
- Improving and establishing healthcare infrastructure in rural and remote areas can significantly reduce MMR in India.
- Creating awareness in society is also an important step to reduce maternal mortality since many women are unable to access adequate healthcare facilities due to cultural practices or societal taboos.

Reference

1. https://www.thehindu.com/news/national/explained-what-are-the-major-causes-of-maternal-mortality/article65237100.ece?homepage=true
2. https://timesofindia.indiatimes.com/life-style/health-fitness/health-news/maternal-mortality-causes-of-maternal-death/articleshow/28041607.cms

Steps Taken To Reduce Unemployment

- Data on Employment and Unemployment is collected through Periodic Labour Force Survey (PLFS) conducted by National Statistical Office, Ministry of Statistics & Programme Implementation since 2017-18.
- As employment generation coupled with improving employability is the priority of the Government, the Government of India has taken various steps for generating employment in the country. They are,
- **Aatmanirbhar Bharat package** provides stimulus to business and to mitigate the adverse impact of Covid 19. Under this package, the Government is providing fiscal stimulus of more than Rs. 27 lakh crore.
- This package comprises of various long term programs/ policies for making the country self-reliant and to create employment opportunities.
- **Aatmanirbhar Bharat Rojgar Yojana** (ABRY) has been launched in 2020 as part of Atmanirbhar Bharat package 3.0
- It aims to incentivize employers for creation of new employment along with social security benefits and restoration of loss of employment during Covid-19 pandemic.
- **Pradhan Mantri Mudra Yojana** (PMMY) is being implemented by the Government for facilitating self-employment.
- Under PMMY, collateral free loans upto Rs. 10 lakh, are extended to micro/small business enterprises and to individuals to enable them to setup or expand their business activities.
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- **Garib Kalyan Rojgar Abhiyaan** (GKRA) of 125 days was launched by the Government in 2020.
- It aims to boost employment and livelihood opportunities for returnee migrant workers and similarly affected persons including youth in rural areas, in 116 selected districts across 6 States (Bihar, Jharkhand, Madhya Pradesh, Odisha, Rajasthan and Uttar Pradesh).
- The Government of India is encouraging various projects involving substantial investment and public expenditure on schemes like
    - PM Employment Generation Programme (PMEGP) of the Ministry of MSME,

    - Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) &
    - Pt. Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY) of the Ministry of Rural Development,
    - Deen Dayal Antodaya Yojana-National Urban Livelihoods Mission (DAY-NULM) of the Ministry of Housing & Urban Affairs etc.
- **Other Schemes** that indirectly leads to huge job and entrepreneurial opportunities are PM GatiShakti**,** Production Linked Incentive (PLI) schemes, etc.

Reference

https://pib.gov.in/PressReleasePage.aspx?PRID=1809229

