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India Water Impact Summit

- It is organised by the Ministry of Jal Shakti and the Centre for Ganga River Basin Management and Studies (cGanga).
- The summit's focus is to host multi-country dialogue to build up India's international collaborations in the water sector.
- The primary purpose of this conference is to have comprehensive analysis and review of river rejuvenation and local river.
- The theme of the fifth edition of the summit was based on the concept of "Arth Ganga", river conservation synchronised development.
- The 'Arth Ganga' initiative would economically enhance the villages which are situated near the Ganges.

NB-IoT Network

- Skylotech India has partnered with BSNL to launch a satellite-based narrowband IoT network in India.
- This is the world's first satellite-based NB-IoT network.
- It will connect with BSNL's satellite ground infrastructure and provide pan-India coverage, including Indian seas.
- This technology supports the Telecom Department and NITI Aayog's plan of bringing indigenous IoT connectivity to India's core sectors.
- It will transform India's lives and domestic industries like agriculture, railways and fisheries.
- Also, Skylo would help provide critical data for the logistics sector to enable effective distribution of Covid-19 vaccine in 2021.

Aerosols in IGP

- Indo-Gangetic Plain (IGP) is located south and upwind of the Himalayan foothills.
- A team under the Dept. of Science & Technology Climate Change program has found that high aerosol loading in IGP has increased the high rainfall events in the foothills of the Himalayan Region.
- They have found that the particulate emissions can alter the physical and dynamical properties of cloud systems.
- These alterations, in turn, amplify rainfall events over orographic regions

downwind of highly polluted urban areas.
- The team found clear associations between high precipitation events, high aerosol loading, and high moist static energy (MSE) values.
- (MSE of an air mass includes the potential energy due to its height above the ground and the latent heat due to its moisture content).

Beresheet 2

- Israel launched the Beresheet 2 project (Beresheet means "Genesis").
- This project will be made up of three adjacent spacecrafts.
- It aims at landing an unmanned craft on the moon in 2024, after a previous such mission had crashed into the lunar surface.
- The original Beresheet was a spacecraft built by Israeli NGO SpaceIL and state-owned Israel Aerospace Industries.
- It had reached the moon in April 2019, but suffered an engine failure as it prepared to land.
- Israel would become the fourth nation to land on the moon, only after Russia, the US and China.

Molnupiravir

- The antiviral drug Molnupiravir, or MK-4482/EIDD-2801, has been shown to stop the transmission of SARS-CoV-2 in 24 hours.
- This is the first oral drug to rapidly block SARS-CoV-2 transmission.
- The drug stops replication of the copies of the virus's RNA in the cell.
- Indian researchers plan to apply to the drug regulator to conduct human trials with the drug.

Emissions Gap Report 2020

- This annual report is released by the United Nations Environment Programme (UNEP).
- It measures the gap between anticipated emissions and levels consistent with the Paris Agreement goals of limiting global warming this century to well below 2°C and pursuing 1.5°C.
- The year 2020 is on course to be one of the warmest on record, while wildfires, storms and droughts continue to wreak havoc.
- The findings from the report are:
    1. **Record high GHG emissions**: These emissions continued to grow for the third consecutive year in 2019.
    2. **Record carbon emission**: Fossil CO2 emissions dominate total GHG emissions and consequently the growth in GHG emissions.
    3. **Forest fires increasing GHG emissions**: Since 2010, GHG emissions

have grown at 1.3% per year on average.

4. **G20 countries:** They account for the bulk of emissions.
5. **Slowing GHG emission rate:** This is happening. But, GHG emissions are declining in OECD economies and increasing in non-OECD economies.
6. **Consumption-based emissions**: Rich countries have higher consumption-based emissions than territorial-based emission.
7. **COVID-19 impact**: CO2 emissions could decrease by about 7% in 2020 compared with 2019 levels due to COVID-19.
8. **Other GHGs level**: Although CO2 emissions will decrease in 2020, the resulting atmospheric concentrations of major GHGs and nitrous oxide continued to increase in both 2019 and 2020.
9. **Net zero level**: 126 countries covering 51% of GHG emissions have net-zero goals that are formally adopted, announced or under consideration.

- Another major UNEP report is Global Environment Outlook.

Source: ANI, Economic Times, PIB, First Post, The Indian Express, Down To Earth

