

# KSG:NEWSPAPER CRUX

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## NEWSPAPER HIGHLIGHT

- **NASA has extracted oxygen from the carbon dioxide in the thin Martian atmosphere. The unprecedented extraction of oxygen on Mars was achieved by a device called MOXIE aboard Perseverance, a six wheeled science rover. MOXIE is short for Mars Oxygen In-Situ Resource Utilization Experiment. It produced about 5 grams of oxygen, equivalent to roughly 10 minutes' worth of breathing for an astronaut. This is the first extraction of a natural resource from the environment of another planet.**
- **Scientists have discovered what may be the smallest known black hole in the Milky Way galaxy and the closest to our solar system.' Nicknamed 'Unicorn' the researchers said the black hole is roughly three times the mass of our Sun, testing the lower limits of size for these extraordinarily dense objects. A luminous red giant star orbits with the black hole in a so-called binary star system named V723 Mon.**
- **India is the second largest producer of wheat in the world, with over 30 million hectares in the country dedicated to producing this crop. But with severe groundwater depletion, the cropping intensity or the amount of land planted in the winter season may decrease by up to 20% by 2025, notes a new paper. Some of the important winter crops are wheat, barley, mustard and peas.**
- **Southeast Asian leaders demanded an immediate end to killings and the release of political detainees in Myanmar in an emergency summit with its top general and coup leader in the Indonesian capital, Indonesia's President Joko Widodo said.**
- **Justice N.V. Ramana was on Saturday sworn in as the 48th Chief Justice of India (CJI) by President Ram Nath Kovind at Rashtrapati Bhavan. Justice Ramana will have a tenure of one year and four months.**

## LEADERS' SUMMIT ON CLIMATE

- 1.The Leaders' Summit on Climate was convened by the US President virtually. 40 world leaders, including the Prime Minister of India, were invited to the event to underscore the urgency of stronger climate action. This summit is seen as a key milestone on the road to the United Nations Climate Change Conference, Conference of the Parties 26 (COP 26) in November 2021 in Glasgow, Scotland.
- 2.US' Pledged: **To cut the US's GreenHouse Gas (GHG) in half by the year 2030 and called upon other nations to "set higher climate ambitions"** that will create jobs at home, advance innovative technologies and help countries vulnerable to the impact of climate change.
- 3.Applauded: **India for stepping up its climate change commitment including the partnership with the US to deploy 450 gigawatts of renewable power** to meet the ambitious 2030 target for climate action and clean energy.
- 4.India's Stand : Emissions: India was already doing its part and that the country's per capita carbon emissions are 60% lower than the global average.

## CREW 2 MISSION

- 1.Four astronauts were launched to the International Space Station (ISS) from Florida as part of a collaboration between NASA and SpaceX under the Commercial Crew Program. The mission is called Crew-2.
- 2.NASA's Commercial Crew Program is a partnership between NASA and private industry to carry astronauts to and from the International Space Station.
- 3.Unlike previous human spaceflight programs, NASA is a customer buying flights from commercial providers. The agency does not own or operate the spacecraft.
- 4.The **program is helping to lower the cost of spaceflight and potentially create a new commercial market for humans in space.**

## CLIMATE CHANGE:IMPACT ON CHILDREN

- 1.A recent analysis, based on Notre Dame Global Adaptation Initiative (ND-GAIN) index, has shown the impact of climate change on children across the world. The analysis was done by Save the Children International, a child rights non-profit organisation.
- 2.Sub-Saharan Africa has 35 of the 45 countries globally at highest climate risk. Climate risk can be defined as a combination of hazard exposure, sensitivity to impact, and adaptive capacity.
- 3.**Of the 750 million children in 45 countries likely to be most affected by climate risk, 210 million are in three South Asian nations — Pakistan, Bangladesh and Afghanistan.**
- 4.India's Scenario:Disadvantaged and vulnerable populations (including children), indigenous people and local communities dependent on agricultural or coastal livelihoods are at a disproportionately higher risk.

## NITRIC OXIDE(NO)

- 1.Some trials indicated that a nitric oxide(NO) nasal spray can be an effective viral treatment against SARS-CoV2. NO is a colourless, odorless gas that is soluble in aqueous and organic solvents.
- 2.**NO occurs naturally in the environment during lightning. In the laboratory nitric oxide can be produced by reduction of nitric acid or nitrous acid.**
- 3.Nitric oxide is called a free radical because it contains single unpaired electrons in its molecule. Hence it is reactive, and has a half-life of only a few seconds. NO is an ozone depleting gas.