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Tarantula Nebula

NASA's James Webb telescope has captured the stunning image of the Tarantula Nebula in detail.

- The Tarantula Nebula (or the 30 Doradus) is a **stellar nursery** situated in the Large Magellanic Cloud galaxy 161,000 light years away.
- The nebula stretches across 340 light years.
- It is the largest and the brightest star-forming region in the Local group that includes our Milky Way galaxy.

The Tarantula Nebula is named for its filaments of dust that looked like spider silk in previous images.

- The Tarantula Nebula has a cavity that has been hollowed out by the radiation emitted by a cluster of young stars.
- The powerful winds emitted by the young stars have blown away all but densest areas of the nebula, giving it the appearance of a burrowing tarantula's home.
- The densest part of the nebula form pillars of dust and gives birth to massive **protostars** (very young stars).
- These protostars emerge from their "dusty cocoons" and help shape the nebula.
- It was previously thought the protostars were older stars.
- Studying a nebula that is close enough be observed gives scientists an opportunity to know more about the '**cosmic noon**' - when the universe was only a few billion years old and producing stars at a rapid pace.

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Gogra-Hotsprings Area

India and China armies have begun to disengage from Patrolling Point-15 (PP-15) in the Gogra-Hotsprings area of Eastern Ladakh.

- The two armies are likely to set up a "buffer zone" or "no-patrolling" area at Patrolling

Point 15 as they did in other friction points.
- This disengagement would mark a step forward to end the standoff ongoing since May 2020.

Patrolling Points are certain locations along the LAC where the Indian Army troops patrol the area to assert their control over the territory. They are decided by the China Study Group (CSG).

- **Friction points** - PP15 in Hot Springs and PP17A near Gogra Post were among the four friction points between India and China.
- The other two friction points are PP14 in Galwan Valley and the north bank of Pangong Tso.
- **Gogra-Hotsprings Area -** Both PP-15 and PP17A are close to Chang Chenmo River in Galwan in eastern Ladakh.
- They are located north of Karakoram Range of mountains, and southeast of Galwan Valley.
- **Related Links** - PP15 and PP17A**,** Pangong Tso, Bridge China

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The Gender Snapshot 2022

The Progress on the Sustainable Development Goals (SDG): The Gender Snapshot 2022 was released recently.

- The Gender Snapshot 2022 report was launched by UN Women and the UN Department of Economic and Social Affairs (UN DESA).
- It displayed that Sustainable Development Goal 5 (SDG-5), or achieving gender equality, will not be met by 2030 at the current pace of progress.
- **Highlights of report** - 286 years will be needed to achieve full gender equality at current rate of progress.
- By end of 2022, around 383 million women and girls will live in extreme poverty (on less than $1.90 a day) compared to 368 million men and boys.
- The longer we take to reverse this trend, the more it will cost us all.
- Over 1.2 billion women and girls of reproductive age (15-49) live in countries and areas with some restrictions on access to safe abortion.
- Women hold only 2 in every 10 science, engineering and information and communication technology jobs globally.
- **Global challenges**, such as the COVID-19 pandemic and its aftermath, climate change and the backlash against women's sexual and reproductive health and rights

further exacerbate gender disparities.
- **Recommendations** - To eradicate child marriage by 2030, progress must be 17 times faster than progress of the last decade.
- Long-term structural barriers to gender equality, laws and practices
- The report displays how **cooperation, partnerships and investments** in gender equality agenda are essential to put the world back on track. needs to be addressed and dismantled.

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Shumang Leela

The 50th All Manipur Shumang Leela Festival 2021-2022 kicked off at Iboyaima Shumang Leela Shanglen at Palace Compound in Imphal.

- Shumang Leela (courtyard play) is a Manipuri theatrical art form developed in the 19th-20th century.
- It descended from Lai Haraoba, a ritual of the Meitei community.
- Shumang leela is performed to live music by either an **all-male cast** (who play women's roles too) or an **all-women cast** (who play men's roles too) called nupi shumang leela, and occasionally transgenders too.

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BPal Treatment

The clinical trial led by the TB alliance has showed that the new therapy protocol BPal treatment regimen remains effective against highly drug-resistant strains of tuberculosis (TB) with a reduced dosage.

- The BPaL is a 6-month, all-oral three-drug regimen that is used to treat people with highly drug-resistant forms of TB.
- This regimen consists of three antibiotics - Pretomanid (newest anti-TB drug), Bedaquiline and Linezolid.
- The BPaL regimen has been developed by TB Alliance, a non-profit organization.
- **Significance** - With BPaL, it is likely to take just three daily tablets.

- A shorter regimen, which is all oral and requires lesser doses per day, makes it easier for a patient to adhere and complete treatment.
- BPaL will reduce the TB treatment time drastically from 18 months to 6 months.
- **Facts** - India has the world's highest TB burden: 2.6 million active cases.
- The total number of estimated deaths from all forms of TB, excluding HIV, for 2020 was 4.93 lakh (4.53-5.36 lakhs) in the country, 13% higher than the 2019 estimate.
- India is also one of the top high-burden countries for MDR/RR-TB as estimated by the WHO for 2021–2025.
- The Global TB Report 2021 stated that the mortality rate due to all forms of TB between 2019 and 2020 increased by 11% in India.

Pradhan Mantri TB Mukt Bharat Abhiyaan

- Pradhan Mantri TB Mukt Bharat Abhiyaan is aimed at working towards **elimination of TB from the country by 2025**, by bringing together people from all backgrounds into a `Jan Andolan'.
- The 'Abhiyaan' has been envisioned to bring together all community stakeholders to support those on TB treatment and accelerate the country's progress towards TB elimination.
- The 'Abhiyaan' is a step towards garnering community support towards a patient-centric health system.
- Objectives of the Initiative
    1. Provide additional patient support to improve treatment outcomes of TB patients
    2. Augment community involvement in meeting India's commitment to end TB by 2025
    3. Leverage Corporate Social Responsibility (CSR) activities
- It will be implemented by the Union Ministry of Health and Family Welfare (MoHFW).

Ni-kshay Mitra Initiative

- The Ni-kshay Mitra initiative forms a vital component of the Pradhan Mantri TB Mukt Bharat Abhiyaan.
- This initiative seeks to ensure adequate and nutritional food for those being treated for tuberculosis.
- Ni-kshay Mitra portal provides a **platform for donors (Ni-kshay Mitras)** to provide various forms of support to those undergoing TB treatment.
- The donors could be a wide range of stakeholders from elected representatives, political parties, to corporates, NGOs, and individuals.
- **Working** - The Ni-kshay 2.0 portal will help connect a potential donor with a district TB official, who, in turn, will chalk out the number of patients in a geographical region eligible for receiving this aid.
- Each food-basket is likely to cost Rs 1,000-1,200 a month to the donor.

Three-pronged support to treat TB includes nutritional, additional diagnostic, and vocational support.

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