

# DAILY PT POINTERS

21 November,  
2024



## Indian Express-Science and Tech(GSIII)-Page 7

FOR COST BENEFITS, OPTIMISE RESOURCES, COLLABORATIVE INNOVATION

### IN-SPACe looking at private players in ground segments

ANONNA DUTT  
NEW DELHI, NOVEMBER 20

AFTER SATELLITES and launch vehicles, the Indian National Space Promotion and Authorisation Centre (IN-SPACe) – the central agency for regulating and promoting the private space sector – is looking at ways for entry of private players in ground segments, according to a consultation document prepared by it.

Ground stations are essentially ground-based antennas that help in communicating with the satel-

lites. Offering ground station as a service (GSaaS) such as satellite control, telemetry and tracking, space data reception, and space situational awareness on pay-per-use basis, the sector has been envisioned to grow 30% by 2033 – from \$0.14 billion to \$2.5 billion, according to the document. This is in line with the government's vision to increase India's share in the global commercial space market from 2% to 8% by 2033.

"... a view emerged that sharing of the ground stations by multiple service providers or consortium should be encouraged, while

considering the ISRO premises or sites, since it leads to several benefits, including reducing the need for accommodating multiple stations at the same site, cost benefits, resource optimisation, enhanced service coverage, and collaborative innovation," the document states.

Offering ground stations as a service (GSaaS) has several benefits. Setting up and maintaining ground stations can be exorbitant, and each station provides coverage over a limited area in the low earth orbit.

A network of ground stations

needs to be set up in different geographies, building in redundancies of a system that in the event of a problem ensures that operations are uninterrupted, can become expensive. Also, updating technology can also be draining on the finances.

However, GSaaS is in its nascent stage and there are several challenges that private players face: Unclear regulations for setting it up within the country at the moment, the capital required, getting licence and spectrum, high rates for reception of earth observation data, challenges in on-

boarding satellite operators that even that sector is in nascent stages, and high costs of several technologies from ISRO, while government support is needed for access to testing facilities, especially for large antennas for deep space communications. It will also need assistance for market access and networking opportunities with potential customers, investors, and partners.

After consultation with stakeholders, IN-SPACe has identified areas that it needs to work on. Primarily, providing clarity on regulatory processes, especially for filings with the International Telecommunication Union (ITU) for spectrum allocation. A single window mechanism for all approvals is also needed, streamlined processes and timelines. The industry will also need a waiver of licence fee for receiving data.

The document also states that the industry will need transfer of technologies from ISRO, while government support is needed for access to testing facilities, especially for large antennas for deep space communications. It will also need assistance for market access and networking opportunities with potential customers, investors, and partners.

In July 2024, the Hyderabad-based spacetech startup Dhruve Space became one of the first private players in the country to get approval from IN-SPACe to provide ground station as a service.

<https://epaper.thehindu.com/ccidist-2035-11-20-05-11-6B7DK30Y1>  
<https://www.thedailynews.com/india/2025/11/20/india-space-ground-segments-private-players/>

- The Indian National Space Promotion and Authorization Center (IN-SPACe) is exploring ways to allow private players to enter the ground segment of the space sector, focusing on ground stations, which are essential for satellite communication.
- The ground station-as-a-service (GSaaS) model, offering services like satellite control, telemetry, tracking, and space situational awareness, is expected to grow 30% by 2033, from \$0.14 billion to \$2.5 billion. This aligns with India's goal to increase its global commercial space market share from 2% to 8% by 2033.
- GSaaS sector is projected to grow from \$0.14 billion to \$2.5 billion by 2033, aligning with India's goal to increase its share in the global commercial space market.
- Benefits: Shared ground stations offer cost benefits, resource optimization, enhanced service coverage, and collaborative innovation.
- Challenges: Regulatory clarity, high setup costs, licensing, spectrum issues, and onboarding satellite operators.



## Indian Express-IR(GSII)-Page 8

**MODI, ALBANESE MEET ON G20 SIDELINES**

# India, Australia agree on tie-up in clean energy, push for trade pact

Will continue to support peace, stability in Indo-Pacific region together: PM

EXPRESS NEWS SERVICE  
NEW DELHI, NOVEMBER 20

INDIA AND Australia agreed on an ambitious renewable energy partnership and looked forward to working towards a comprehensive economic cooperation agreement as PM Narendra Modi and his Australian counterpart Anthony Albanese met on the sidelines of the G20 leaders' Summit in Brazil.

Strengthening ties in areas of defence and security, mobility, science and technology and education figured prominently during the second India-Australia annual conclave held late Tuesday. The two leaders also looked forward to a long-term vision of defence and security collaboration to enhance collective strength, contribute to both countries' security, and make an important contribution to regional peace and security, according to a joint statement.

The two PMs welcomed the



PM Narendra Modi with his Australian counterpart Anthony Albanese in Rio de Janeiro on Tuesday. PTI

In his media statement after the Summit talks with Albanese, Modi said both sides will work on new possibilities of cooperation in areas like defence industry, critical minerals, renewable energy, ship building, space and sports.

With both sides keen to build on the momentum created by the Economic Cooperation and Trade Agreement (ECTA), which was signed in 2022, the two PMs wel-

Modi said work will be done for a mutually beneficial CECA and that Albanese committed to protect the interests of the Indian community in Australia, especially Indian students. After the implementation of ECTA, our mutual trade has increased by 40% in the last two years, he said.

Modi also emphasised the need to resolve conflicts and tensions through dialogue and diplo-

Security Cooperation in 2025, to reflect ambition in both countries' elevated defence and security partnership and strategic convergence".

Modi said both India and Australia are also unanimous on the need for reform in global institutions. Modi said Albanese has accepted his invitation for the Quad summit to be held in India next year. "I am confident that in the times to come, the partnership between India and Australia will touch new heights and will become a force for the global good," he said.

According to the joint statement, the two leaders observed that 'Make in India' and 'Future Made in Australia' have complementarity and collaborative potential and could help create new jobs, unlock economic growth and secure our future prosperity in a changing world.

"The leaders called for greater two-way investments reflective of the Comprehensive Strategic Partnership and in-

- India and Australia have agreed on a renewable energy partnership and are working towards a comprehensive economic cooperation agreement. This was announced during a meeting between Prime Minister Narendra Modi and Australian Prime Minister Anthony Albanese at the G20 Summit in Brazil.
- Key Points:
  - Renewable Energy Partnership (REP): Focus on solar energy, green hydrogen, energy storage, and related investments.
  - Defence and Security: Strengthening ties and enhancing cooperation in the Indo-Pacific region.
  - Economic Cooperation: Building on the Economic Cooperation and Trade Agreement (ECTA) signed in 2022, with a 40% increase in mutual trade over the last two years.
  - Comprehensive Economic Cooperation Agreement (CECA): Aiming for an ambitious and mutually beneficial agreement

Indian Express-IR(GSII)-Page 8

## Modi first Indian PM to visit Guyana in 56 years, signs 10 pacts to expand ties

EXPRESS NEWS SERVICE  
NEW DELHI, NOVEMBER 20

INDIA AND Guyana on Wednesday sealed 10 agreements to strengthen cooperation in hydrocarbons, digital payment systems, pharmaceuticals, and defence after bilateral talks between Prime Minister Narendra Modi and Guyanese President Mohamed Irfaan Ali.

Modi said Guyana will play an important role in India's energy security and a blueprint for long-term partnership in the sector will be prepared. "The visit of an Indian Prime Minister to Guyana after 56 years is an important milestone in our relations. I have had a deep personal bond with Guyana," he said while recalling his visit to the South American country about 24 years back.

The PM arrived last night from Brazil's Rio de Janeiro, where he attended the G20 summit. One of the MoUs will allow the deployment of India's UPI (Unified Payments Interface)

building of Guyana's military through scholarships and training. "Close cooperation in the field of defence is a symbol of our deep mutual trust. I am happy that this year India has supplied two Dornier aircraft to Guyana."

Agreeing to expand cooperation in the agriculture sector, Modi said: "With the millet seeds provided by India last year, we were able to contribute to increasing the food security of Guyana..." India also agreed to set up a Jan Ausadhi Kendra in Guyana.

The two leaders also deliberated on regional and global issues. President Ali said Modi's visit to Guyana represents a significant milestone in enhancing cooperation between the two nations. He called Prime Minister Modi a "champion among leaders" for his impactful leadership and contribution to the developing world.

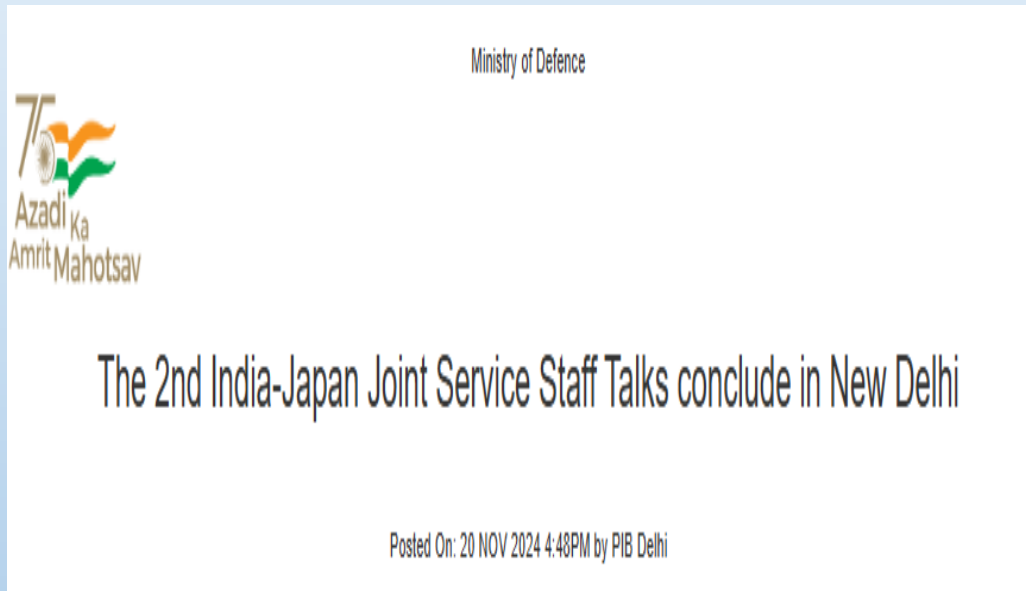
"Thank you very much... It is our greatest honour to have you here," Ali said during a joint press statement with Modi. He lauded Modi's governance style, noting its relevance and adoption in Guyana and other nations.

- India and Guyana signed 10 agreements to enhance bilateral cooperation in key sectors including hydrocarbons, digital payment systems, pharmaceuticals, defence, and agriculture. The agreements were finalized after talks between Indian Prime Minister Narendra Modi and Guyanese President Mohamed Irfaan Ali.
- Notable agreements include the deployment of India's Unified Payments Interface (UPI) in Guyana, contributions to Guyana's military capacity through training and scholarships, and the provision of Dornier aircraft. The two countries also agreed to expand agricultural cooperation, with India supplying millet seeds to enhance food security in Guyana. Additionally, India will establish a Jan Ausadhi Kendra in Guyana to support affordable medicines.

# HEADLINES OF THE DAY



## PIB-IR(GSII)



- The 2nd India-Japan Joint Service Staff Talks (JSST) concluded on November 20, 2024, in New Delhi, emphasizing enhanced cooperation in space and cyber technologies as key components of their evolving defence partnership. The talks, co-chaired by Air Vice Marshal Prashant Mohan of India and Major General Minamikawa Nobutaka of Japan, focused on strengthening existing defence engagements and exploring new areas of collaboration. Both nations highlighted the importance of their partnership in addressing security challenges and ensuring peace in the Indo-Pacific region.
- The JSST serves as a platform for high-level operational discussions, fostering closer ties between the Indian and Japanese armed forces. The meeting reinforced their long-term strategic partnership, underpinned by mutual trust, respect, and shared values, with both sides committing to regular future discussions.




# HEADLINES OF THE DAY



## PIB- Governance(GSII)

Ministry of Jal Shakti




HMJS launches “Bhu-Neer” Portal for ground water withdrawal permits

“Bhu-Neer” features includes PAN based single ID system and NOC with QR code

Ceremonial conclusion for India Water Week 2024

Posted On: 20 NOV 2024 11:59AM by PIB Delhi



The image shows a photograph of the inauguration ceremony for the Bhu-Neer portal. A large, ornate banner in the background contains the following text: 'श्री सी आर पाटिल' (Shri C R Patil), 'Hon'ble Minister, Ministry of Jal Shakti, Govt. of India', 'के कर कर्मचारी द्वारा 8 वे भारत जल सप्ताह - 2024 के दौरान' (Inaugurated during 8th India Water Week - 2024), 'बु-नीर पोर्टल BHU-NEER PORTAL', 'पूजा विधानी सहायता प्रदान पर' (Bhujai Nikasi Anapatti Praman Patra), 'https://cgwa-bhuneer.mowr.gov.in', 'का शुभारंभ' (Inauguration), 'गणितमयी उपस्थिति' (Virtual presence). Below the banner, several officials are visible on a stage, including the Hon'ble Minister of Jal Shakti, Shri C.R. Patil, and the Hon'ble Minister of State Jal Shakti, Shri V. Sankaranarayanan. The date and location are noted as 'नई दिल्ली, दिनांक 19 सितम्बर 2024' (New Delhi, 19 September 2024).

The Hon'ble Minister of Jal Shakti, Shri C.R. Paatil digitally launched the newly developed “Bhu-Neer” portal on 19th September 2024 during the concluding ceremony of India Water Week 2024. The “Bhu-Neer” is an advanced portal developed by Central Ground Water Authority (CGWA), under the Ministry of Jal Shakti, in collaboration with the National Informatics Centre (NIC), for improved groundwater regulation across the country. This portal will serve as a one-stop platform for managing and regulating groundwater resources, aimed at ensuring transparency, efficiency, and sustainability in groundwater usage.

# HEADLINES OF THE DAY



## PIB- Science and Tech(GSIII)



- Union Minister Dr. Jitendra Singh launched "Nafithromycin," India's first indigenous antibiotic developed to combat antimicrobial resistance (AMR).
- Treats Community-Acquired Bacterial Pneumonia (CABP), particularly effective against drug-resistant bacteria.  
Efficacy: Ten times more effective than current antibiotics like azithromycin; targets both typical and atypical pathogens.  
Development: Result of 14 years of research and ₹500 crores investment, with clinical trials in the U.S., Europe, and India.  
Approval: Awaiting final approval from the Central Drugs Standard Control Organization (CDSCO).

# HEADLINES OF THE DAY

## Air- GS3(Defence)

### More Than 1.76 Cr School Students From 36 States And UTs Participate In Veera Gatha 4.0



- Project Veer Gatha 4.0 saw participation from over 1.76 crore school students across all 36 States and Union Territories. They created poems, paintings, essays, and videos to honour the bravery and sacrifice of Armed Forces personnel.
- **Purpose:**
- Established in 2021, the project aims to spread inspiring stories of valour and selfless sacrifice by Gallantry Awardees.
- It provides a platform for students to engage in creative projects based on these heroic deeds.



## The Hindu- GS2(Governance)-Page 8

### How does PM Vidyalaxmi differ from other schemes?

Does this central scheme cover middle-income students? Does it depend on NAAC and NBA certifications? Why have a lot of institutions been left out from the list?

**Ravina Warkad**

**The story so far:**

On November 6, the Union Cabinet chaired by Prime Minister Narendra Modi approved a new Central Sector Scheme, PM Vidyalaxmi, which seeks to provide financial support to meritorious students applying for higher education. Students will now be eligible to get collateral-free, guarantor-free loans from banks and financial institutions to cover the full amount of tuition fees and other expenses related to the course.

The scheme will potentially cover 22 lakh students, a Ministry of Education spokesperson said. For students with an annual family income of up to ₹8 lakh, and not eligible for benefits under any other government scholarship, a 3% interest subvention for loans up to ₹10 lakh will be provided during the moratorium period. The interest subvention support will be given to one lakh students every year. Preference will be given to students from government institutions who have opted for technical or professional courses. "An outlay of ₹3,600 crore has been made during

central government schemes in the number of institutions eligible, mode of processing of loans, the income cap, and the amount of money to be disbursed. For example, students can apply for loans through the Vidyalaxmi portal, which simplifies loan applications and has links to all major public sector as well as private banks. It also facilitates the tracking of the loan status.

Moreover, while previous schemes offered benefits to only low-income groups, the Vidyalaxmi scheme expands coverage to middle-income families, irrespective of other factors such as caste.

institutions, the total was about 20,000 institutions. However, under Vidyalaxmi, only institutions with NIRF ranks are eligible. This means that the scheme will be applicable to all government and private institutions ranked within the top 100 in NIRF rankings in the overall list as well as all institutions in the category-specific and domain-specific lists. Professor O R S Rao, Chancellor, IIT Jammu, who helped to compile the list of universities eligible for the scheme, says the list does not feature 860 unique institutes as some are ranked in multiple categories. An institute has to register for the ranking as a prerequisite to feature in the rankings. While some institutions apply to a single category, some others apply for multiple categories and hence feature on more than one list.

**What are the implications?**

Rankings are now becoming more and more important with loan eligibility being conditional on them. As this scheme significantly reduces the number of eligible institutions, the stakes of performing well in higher education

**THE GIST**



On November 6, the Union Cabinet chaired by Prime Minister Narendra Modi approved a new Central Sector Scheme, PM Vidyalaxmi, which seeks to provide financial support to meritorious students applying for higher education.



PM Vidyalaxmi differs from previous central government schemes in the number of institutions eligible, mode of processing of loans, the income cap, and the amount of money to be disbursed.



Rankings are now becoming more and more important with loan eligibility being conditional on them.

- the Union Cabinet, chaired by Prime Minister Narendra Modi, approved the PM Vidyalaxmi scheme, providing collateral-free, guarantor-free loans for meritorious students pursuing higher education. The scheme covers students admitted to 860 institutions ranked by the National Institutional Ranking Framework (NIRF).  
Scheme Details:
  - Eligibility: 22 lakh students, with a focus on those from families with an annual income up to ₹8 lakh.
  - Benefits: 3% interest subvention on loans up to ₹10 lakh during the moratorium period for one lakh students annually.
  - Preference: Given to students in government institutions opting for technical or professional courses.Comparison to Past Schemes:  
Broader Coverage: Includes middle-income families, irrespective of caste.  
Eligible Institutions: Only NIRF-ranked institutions, significantly reducing the number compared to previous schemes.

## The Hindu-Environment(GSIII)-Page 12

### Planetary crisis puts children at risk: UNICEF report

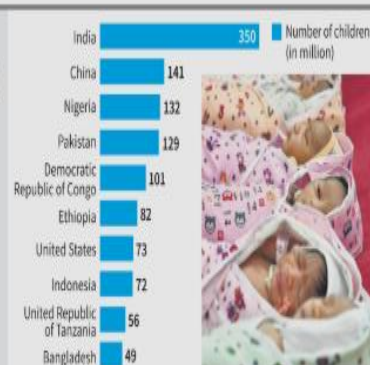
Bindu Shajan Perappadan  
NEW DELHI

The world is facing an unprecedented planetary crisis with nearly half the world's children – about one billion – living in countries that face high risk of climate and environmental hazards, said the UNICEF's State of the World's Children 2024 (SOWC-2024) report, released on Wednesday.

The report examines impact of three long-term global forces – demographic shifts, climate and environmental crises, and frontier technologies – which it claims will have a profound effect on children's lives between now and 2050.

#### Future of childhood

India and China will remain the two countries with the most children in the 2050s, even as the number of children will have dropped by about 106 million in India and by 203 million in China



Note: Countries which may have the largest number of children in the 2050s

SOURCE: THE STATE OF THE WORLD'S CHILDREN 2024, UNICEF



trepreneur. In addition to violating child rights, inhibiting learning stifles economic growth. Climate and environmental hazards also displace children from their homes," the report states.

Additionally, it notes that by the 2050s, the global child population is projected to stabilise at around 2.3 billion. However, this global figure obscures regional shifts where while South Asia will remain one of the regions with the largest child populations, it will be joined by eastern and southern Africa, as well as western and Central Africa.

"These regions already struggle to meet children's

resources could be freed to support children and boost the economy.

On frontier technologies, the report notes that artificial intelligence, next-generation renewable energy and vaccine breakthroughs could significantly improve childhood in the future.

"Digitalisation can empower children but it can also expose children to online risks, including sexual exploitation and abuse," the report cautions.

It adds that over 95% of people in high-income countries are connected to the Internet, compared with barely 26% in low-income countries. Infrastructure limitations, high costs and permission har-

- The UNICEF State of the World's Children 2024 (SOWC-2024) report highlights the severe impact of climate and environmental crises on nearly one billion children living in high-risk countries
- Key Points:
  - Climate and Environmental Hazards: Climate destabilization, biodiversity collapse, and pollution are worsening. Children's developing bodies are particularly vulnerable to these threats, with air pollution, rising temperatures, and extreme weather posing significant health risks.
  - Impact on Health and Education: Increased disease spread, waterborne illnesses, food insecurity, and mental health issues. School closures due to extreme weather have affected 400 million students since 2022.
  - Regional Shifts: By 2050, the global child population will stabilize at 2.3 billion, with significant growth in South Asia, eastern and southern Africa, and western and Central Africa.