



GOVERNMENT POLICY REPORT JULY 2025 EDITION



01 SUSTAINABILITY

India Fostering Academia-Science Partnerships for Sustainable Startups

India is accelerating a strategic shift in its innovation ecosystem by intentionally nurturing partnerships between academic institutions and scientific organizations. **Emphasizing that "the age of working in silos is over,"** the government has made it clear that breaking institutional silos is central to fostering innovation. **Institutions such as IITs, IIMs, AIIMS, IIMC, and CSIR are being actively guided to deepen their collaborations in order to strengthen sustainable startup ecosystems.**

At the inauguration of a new incubation centre at IIM Mumbai in June 2025, it was highlighted that integrating academia, industry, and government is essential for nurturing innovation-driven entrepreneurship. This vision aligns with broader national efforts like AIM 2.0, which promote early-stage industry linkages, hybrid funding models, cross-sector mentorship, and collaborative research environments to support scalable, sustainable startups.



Source: https://www.pib.gov.in/PressReleasePage.aspx?PRID=2139279



ATAL INNOVATION MISSION 2.0

- To strengthen India's innovation & entrepreneurship ecosystem in 3 ways:
- Increasing input (ushering innovators & entrepreneurs)
- Improving throughput (helping more startups succeed)
- Improving output (producing better jobs, products, & services)



Source: https://www.tnpscthervupettagam.com/currentaffairs-detail/atal-innovation-mission-20

India's investment in research and development has grown, underlining its focus on developing homegrown capabilities in biotechnology, artificial intelligence, and quantum computing. The creation of India's first indigenous DNA-based COVID-19 vaccine marks a key outcome of this support.

The Aroma Mission, driven by CSIR and academic labs, has enabled over 3,000 rural entrepreneurs to engage in lavender cultivation. India, now the third-largest startup ecosystem globally, has surpassed 150,000 startups in 2025—up from just 350 in 2014—underscoring the transformative impact of inclusive, collaborative, and innovation-driven frameworks.



Source: https://indiascience.dst.gov.in/videos/aroma-mission-2-dot-0-e-1

Recently, a Hyderabad Startup Conclave reinforced the message that scientific research must move beyond institutional boundaries. Public-private-scientific collaboration are prioritized to ensure innovation in sectors like agriculture, biotech, and space tech is inclusive, impactful, and contributes to sustainable startups.

India's progress in fostering innovation is being reinforced by a substantial rise in R&D investments and strategic policy frameworks like NEP-2020, BIO-E3, and the National Quantum Mission. These initiatives are designed to eliminate systemic hurdles and encourage students, researchers, and institutions to engage in mission-oriented, entrepreneurial pursuits.

KEY STATISTICS



India's 2025 innovation landscape is being reshaped by academia-science-industry partnerships, forging a pathway toward sustainable and inclusive startup growth by integrating interdisciplinary research, local problem-solving, policy alignment, and global market readiness.

02 CLIMATE CHANGE

Scientists Take Over at Himalayan Climate Risks at ARIES 2025

In a significant effort to confront escalating climate challenges in the Himalayan region, **researchers** from around the world convened at the Aryabhatta Research Institute of Observational Sciences (ARIES), under the Department of Science & Technology (DST), for an international workshop conducted from June 16 to 20, 2025. The event brought together three prominent global networks—NDACC-IRWG, TCCON, and COCCON — focussed on monitoring atmospheric composition and greenhouse gases. Nearly 70 researchers, including over 45 international experts from countries spanning Europe, Asia, Africa, North America, and Australia, participated in this hybrid-format meetina.



Source: https://www.pib.gov.in/PressReleasePage.aspx?PRID=2137301

The discussions at ARIES centered around enhancing ground-based observations of greenhouse gases, particularly through Fourier Transform InfraRed (FTIR) spectroscopy. This method is increasingly vital in regions like the Himalayas, where satellite-based instruments often face limitations due to the complex terrain and atmospheric conditions. The gathering aimed to strengthen collaborative efforts, share new research findings, and chart out future directions for global monitoring of atmospheric changes.

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Located in the heart of the Central Himalayas, the ARIES campus at Manora Peak, Nainital, offered an ideal setting for the meeting due to its geographical and scientific significance. Participants emphasized the urgent need to improve observational data from this ecologically fragile region, which plays a critical role in influencing monsoon patterns, regional climate systems, and glacial health.



Source: https://www.pioneeredge.in/5-day-intl--on-climate-change-commences-ataries/#google_vignette



Source: <u>https://www.financialexpress.com/life/science-international-conference-on-climate-change-and-its-impact-on-himalayan-region-from-september-14-16-2063961/</u>

One of the key takeaways from the conclave was the importance of integrating satellite data with robust, high-resolution ground-based measurements. Expanding India's FTIR network and ensuring sustained long-term observations were recognized as immediate priorities. The forum also highlighted the role of such international collaborations in filling critical data gaps, improving climate models, and supporting national and global climate policy decisions.

KEY THEMES DISCUSSED AT ARIES 2025



By convening this global meeting, ARIES has positioned itself as a hub for atmospheric research in the Himalayan region. The outcome of this collaboration is expected to enhance early warning systems, guide policy on emissions and sustainability, and strengthen India's scientific leadership in addressing climate risks specific to high-altitude ecosystems.

HOW AG GROUP CAN HELP YOU

To tackle with the climate change issues in your sustainability-oriented projects <u>Click Here</u>

03 GREEN ENERGY

India Unveils Solar-Powered Green Hydrogen Technology

India takes a significant leap in clean energy through two innovative breakthroughs in solar-powered green hydrogen. A 5 MW off-grid solar-powered green hydrogen plant, the first of its kind in India, has been successfully set up in Kutch, Gujarat. Powered entirely by solar energy and supported by battery storage, the plant offers a decentralized production model that operates independently of conventional grids. Its fully automated closed-loop electrolyzer adapts to real-time renewable inputs, showcasing India's emerging leadership in hard-to-abate sectors like fertilisers, steel, and refining.

Scientists at Bengaluru's **Centre for Nano and Soft** Matter Sciences (CeNS), under the Department of Science & Technology, have developed a silicon-based device that harnesses sunlight to split water into hydrogen and oxygen, relying solely on naturally available materials. This heterojunction device layers n-type TiO2, intrinsic silicon, and p-type NiO semiconductors to optimize light absorption and charge transport. With a surface photovoltage of 600 mV and low onset potential (~0.11 V RHE), it achieved continuous operation for over 10 hours with just a 4% performance drop—an impressive feat for scalable solar-to-hydrogen systems.



Source: <u>https://www.ndtv.com/india-news/adani-group-commissions-indias-first-off-grid-green-hydrogen-pilot-plant-in-gujarat-8738313</u>



Source: https://www.pib.gov.in/PressReleasePage.aspx?PRID=2138051

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Together, these efforts underscore India's ambition to scale green-hydrogen innovation and build resilient clean energy infrastructure. The Gujarat plant serves as a replicable model for decentralized hydrogen hubs in remote and industrially strategic areas, while the CeNSdeveloped photoanode offers a low-cost, durable, and efficient option for solar-driven hydrogen production using earth-abundant materials. These pioneering initiatives align with the National Green Hydrogen Mission's vision to establish a clean, competitive hydrogen economy that decarbonizes high-emission industries, reduces fossil fuel dependence, and enhances national energy security and technological self-reliance.



Source: <u>https://www.esgtimes.in/uncategorized/india-makes-</u> strides-in-green-hydrogen-and-rooftop-solar-adoption/

ENVIRONMENTAL & INDUSTRIAL IMPACT

Zero Fossil Fuel Dependency

The Gujarat plant runs independently of conventional energy sources.

Decarbonizing Hard-to-Abate Sectors

Targets industries like fertilizers, steel, refining, and transport.

Supports Distributed Hydrogen Generation

Promotes adoption in remote and off-grid regions.

Low-Cost, Scalable Innovation

Silicon-based photoanode paves way for affordable solar-to-hydrogen systems.

India is building a robust green hydrogen ecosystem by adopting innovative **photoelectrochemical methods and setting up off-grid production units, with a focus on sustainable growth and economic resilience.** The solar-powered plant demonstrates feasibility at scale for industrial applications, while the CeNS innovation opens pathways to wider adoption across sectors, tapping abundant solar resources, locally available materials, and advanced semiconductor technologies to drive India toward its renewable energy targets and global green energy leadership.

04 ENERGY SECURITY

Government Expands VGF Scheme to Boost Battery Energy Storage

In a significant step toward strengthening India's renewable energy infrastructure, **the Union Cabinet has approved an expanded Viability Gap Funding (VGF) scheme to support the creation of 30 GWh of new standalone Battery Energy Storage Systems (BESS).** With a financial outlay of Rs 9,400 crore, including Rs 3,760 crore as VGF, the scheme aims to accelerate the deployment of grid-scale energy storage critical for balancing the country's growing share of variable renewable power.

Announced in June 2025, the expanded VGF scheme supports the development of standalone BESS projects with a minimum capacity of 5 MWh per project and a maximum bid capacity of 1000 MWh per developer. The projects must be commissioned within 36 months and will be selected through a competitive bidding process to ensure cost efficiency and transparency.



Tranche-II.pdf



Source: <u>https://www.pib.gov.in/PressReleasePage.aspx?PRID=2135450</u>

This initiative aligns with India's target of achieving 50% cumulative electric power from non-fossil sources by 2030, as part of its N at i o n ally Determined Contributions (NDCs) under the Paris Agreement. BESS will play a key role in enabling round-the-clock renewable energy supply by storing excess solar and wind power for use during peak demand or non-generation hours.

Offering transmission charge waivers for a period of up to 12 years significantly boosts the appeal of the scheme, especially for developers operating in remote locations or regions abundant in renewable energy resources. Additionally, it will help stabilize grid operations and reduce curtailment of renewable power, which remains a challenge in high-renewable-penetration states.



Source: https://energy.economictimes.indiatimes.com/news/power/government-approves-5400-cr-funding-for-30-gwh-battery-storage-to-boost-renewable-energy-infrastructure/121756430

KEY STATISTICS

Rs 9,400 Crore

Rs 3,760 Crore VGF Support **30 Gwh** Storage Capacity Target

5 Mwh

Minimum Project Size

1000 Mwh

Maximum Bid Limit per Developer

36-Month

Project Completion Deadline

Stakeholders from across the sector have welcomed the move, emphasizing that the VGF scheme provides crucial financial backing to bridge the viability gap in deploying high-capex energy storage infrastructure. By incentivizing investment in standalone BESS, the government is laying the groundwork for a more flexible, resilient, and decarbonized grid system.

With global supply chains maturing and technology costs falling, the expanded VGF scheme represents a pivotal opportunity to fast-track India's transition to a clean energy future—making energy storage a mainstream pillar of power sector planning.

HOW AG GROUP CAN BE A HELP

To optimize the usage of renewable energy sources with latest technology adaption <u>Click Here</u>

05 NORTH-EAST REGION

IICA Establishes a New Campus Focussed on Corporate Governance and Development in Northeast

In a landmark move aimed at advancing inclusive growth and institutional capacity in India's northeastern region, the Indian Institute of Corporate Affairs (IICA) has launched its first regional campus in Shillong, Meghalaya. This strategic expansion marks a significant step toward decentralizing corporate governance education and strengthening policy implementation frameworks across India's diverse regions.



Source: <u>https://www.aninews.in/news/national/general-news/iica-to-establish-first-regional-campus-in-northeast-advancing-corporate-governance-and-development20250603143923/</u>

The new Shillong campus, established in collaboration with the Meghalaya Basin Development Authority (MBDA), will offer specialized training and capacitybuilding programs in corporate governance, Environmental, Social and Governance (ESG) frameworks, business sustainability, and related disciplines. It is designed to equip local administrators, professionals, and entrepreneurs with contemporary tools for effective corporate management, compliance, and sustainable enterprise development.

This initiative aligns with the Government of India's broader vision to integrate the Northeast into the national economic mainstream while preserving its unique sociocultural identity. By setting up a regional hub, IICA aims to localize learning, reduce skill gaps, and create institutional linkages that can empower governance bodies, public sector units, and small businesses in the region.



Source: https://www.taxtmi.com/news?id=45569



 $\label{eq:source:https://www.meghalaya.gov.in/sites/default/files/press_release/Press_Release_638.pdf$

The Shillong campus will function as an extension of IICA's national headquarters in Manesar, Haryana. It will bring IICA's proven expertise to the doorstep of stakeholders in the northeastern states, facilitating easier access to executive education, research collaborations, and policy engagement.

Officials highlighted that the move supports the central government's agenda of capacity building, ease of doing business, and regulatory compliance. The regional campus is expected to conduct customized training for civil servants, corporate professionals, cooperatives, and development organizations operating in challenging and remote geographies.

CORE OBJECTIVES

FACILITATE EASE OF DOING BUSINESS

Promote compliance, transparency, and governance best practices.

EMPOWER LOCAL GOVERNANCE & ENTREPRENEURSHIP

Build capacity in civil services, cooperatives, and regional businesses.

DECENTRALIZE CORPORATE TRAINING

Bring IICA's programs closer to remote and underserved regions.

SUPPORT INCLUSIVE DEVELOPMENT

Aligns with national vision to mainstream the Northeast economically.

The establishment of the Shillong campus also contributes to **strengthen the region's participation in corporate India** by fostering a deeper understanding of responsible business conduct, stakeholder governance, and ethical leadership.

By expanding into the Northeast, IICA is not only advancing the principles of corporate governance but also promoting equitable development, institutional inclusivity, and decentralized knowledge dissemination in one of India's most ecologically and culturally rich regions.

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