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Polity & Governance

Yoga Connect

The Ministry of Ayush is hosting 'Yoga Connect', a hybrid global summit, on June 14, 2025, at Vigyan Bhawan, New Delhi, as a key lead-up to the 11th International Day of Yoga (IDY).

• **Yoga Connect** – Aims to *unite yoga gurus, policymakers, health experts, and global influencers*.
• **Theme** – 'Yoga for One Earth, One Health', emphasizing holistic well-being.
• **Participants** – Coordinated by the *Central Council for Research in Yoga and Naturopathy (CCRYN)*.
• Over 1,000 in-person participants will join, alongside virtual attendees from leading international yoga institutions.
• Experts from countries like Bahrain, USA, UK, and South Korea are participating.
• **Thematic Sessions** – The summit will cover *diverse sessions including Yoga for Non-Communicable Diseases,* Yoga-Tech, Yoga and Women's Health, and Yoga Commerce and Industry.
• It will feature participation from notable luminaries such as Swami Baba Ramdevji and HR Nagendraji.
• **Significance** – 'Yoga Connect' marks ten years of India's global yoga movement since the UN declared June 21 as IDY in 2014.
• The event reinforces Yoga's recognition by UNESCO as India’s gift to the world, promoting health, balance, and unity.

Aircraft Accident Investigation Bureau (AAIB)

The AAIB is the primary agency investigating the recent Air India plane crash in Ahmedabad.

• **Aircraft Accident Investigation Bureau (AAIB), India** – Is an *attached office* under the Government of India's *Ministry of Civil Aviation*, crucial for aviation safety.
• It was established on July 30, 2012, to fulfil India's obligations under Annex 13 to the Convention on International Civil Aviation.
• **Mandate and Objectives** – AAIB's sole objective is the *prevention of accidents and incidents*, not to apportion blame or liability.
• It is *responsible for classifying 'Safety Occurrences'* in Indian Airspace into Accidents, Serious Incidents, and Incidents.
• **Scope of Investigations** – AAIB *investigates all Accidents and Serious Incidents involving aircraft* with an All-Up Weight (AUW) over 2250 Kgs or Turbojet aircraft.
• It may also investigate other serious incidents or incidents if deemed expedient.
• **Investigation Process & Reporting** – After investigation completion and Director General's acceptance, reports are made public on the AAIB website.
• Accepted 'Final Investigation Reports' are *forwarded to the International Civil Aviation Organization (ICAO)* and participating States.
• **Safety Recommendations & Studies** – AAIB conducts safety studies and issues recommendations from its investigation reports.
• These recommendations are forwarded to the DGCA, India, or other ICAO Contracting States' Civil Aviation Regulatory bodies for implementation and follow-up.
• **Coordination Role** – AAIB *also facilitates the investigation and administrative work of Courts or Assessors* appointed by the Central Government under relevant Aircraft Rules.

International Relations and Issues

Reko Diq Project

The International Finance Corporation (IFC) and World Bank (WB) recently approved a USD 700 million concessional loan to fund Pakistan's Reko Diq project.

• **Reko Diq project** – A *major mining initiative* in mineral-rich Balochistan province of Pakistan.
• This approval marks a significant victory for Pakistan's resource development sector.
• It is *jointly owned by Barrick Gold and the federal and Balochistan governments*.
• **Project Scope** – A recent feasibility study has upgraded the project's scope significantly.
• The mine life is revised to 37 years due to higher throughput, though it could extend to 80 years with unaccounted minerals.
• **Strategic Significance** – The project's advancement boosts Pakistan's economic standing and its efforts to secure vital investments.
• The World Bank also plans to invest USD 2 billion annually in Pakistan's infrastructure over the next decade.

Agriculture

Agrivoltaics

Bihar farmers have initiated food and energy production through an agrivoltaics site in Gaya district, marking a significant step in sustainable agriculture.

• **Agrivoltaics** – *Combines agriculture and solar power generation*, preventing competition for land between food and energy production.
• It involves *growing shade-tolerant crops beneath solar panels*.
• This allows farmers to simultaneously produce food and generate electricity from the same land area.
• **Bihar's First Agrivoltaics Site** – The Tata Cornell Institute for Agriculture and Nutrition (TCI) and Preservation and Proliferation of Rural Resources and Nature (PRAN) established this site in Nawada village, Gaya of Bihar.
• Built with assistance from Jain Irrigation Systems, it is Bihar's pioneering agrivoltaics installation.
• **Benefits and Operation** – The 20-kilowatt solar array powers a grain mill and micro-irrigation systems, ensuring reliable and affordable irrigation for farmers.
• This enables dry season cultivation and reduces water usage through drip and sprinkler systems.
• Farmers co-financed and collectively own the installation, generating additional income from grain mill services.
• **Environmental and Economic Impact** – The project helps *lower greenhouse gas emissions* from farming while increasing overall productivity.
• It is expected to *expand production to include high-value crops*, significantly increasing farmer incomes.
• This initiative is part of TCI's Zero-Hunger, Zero-Carbon Food Systems project, aiming to reduce agricultural emissions and improve livelihoods.

Environment

Jim Corbett Tiger Reserve

Villages near the Jim Corbett Tiger Reserve are strongly opposing a proposal to open a new ecotourism zone, citing a concerning rise in tiger attacks and increased human-wildlife conflict.

• **AJim Corbett National Park** – Also known as Corbett Tiger Reserve, is *India's oldest* and one of its most prestigious national parks, located in the *Nainital district of Uttarakhand*.
• **Recent Conflict Incidents** – Kyari village recently experienced its first tiger fatality in 50 years.
• Between March 2024-2025, the Ramnagar forest division recorded 12 tiger attacks.
• Locals fear increasing ecotourism negatively impacts animal behavior, escalating conflict.
• **Ecotourism Zones and Revenue** – Jim Corbett and its buffer zones host *15 ecotourism zones*, generating Rs 2,000-3,000 crore annually.
• This industry supports hundreds of local resorts, drivers, and guides, providing significant livelihoods.
• **Proposed New Zone and Opposition** – Terai West proposed a new ecotourism zone in *Chandani*, drawing strong local opposition due to lack of consultation.
• Residents protested, even filing a High Court petition which temporarily halted the proposal.
• **Causes of Conflict** – High tiger density in Ramnagar (estimated 80 tigers; 20 per 100 sq km) is a major factor.
• NTCA reports development and resorts *cause "loss of connectivity" for animal movement*, leading to negative interactions.
• Increased wildlife populations and human expansion into forests also contribute.
• **Community Concerns and Livelihoods** – Villagers face *crop damage* from wild animals and restricted forest access for fodder/firewood.
• Many rely more on forest resources than seasonal tourism income, expressing fear of forced displacement.

Security

Kusha

The Defence Research and Development Organisation (DRDO) recently announced significant progress on Project Kusha, with trials for its variants expected soon.

• **Project Kusha** – An *indigenous air defence system*, with phased induction into the armed forces expected by 2030.
• This initiative aims to fortify India's air defence capabilities with *long-range, home-grown solutions*.
• **Kusha Variants & Capabilities:**
- **Kusha M1** – Equipped with *short-range missile systems* for intercepting incoming aircraft and missiles (up to ~150 km).
- **Kusha M2** – Features more than *medium-range surface-to-air missiles (MRSAM)* (250 km range approximately).
- **Kusha M3** – Designed for a hit reach exceeding 400 kilometers (some reports suggest 350-400 km).
• *All three variants will use the same kill vehicle but different boosters* for varying ranges.
• **Operational Design** – Kusha is engineered to *provide multi-layered space protection*.
• One system can launch multiple interceptor missiles to cover a stretch between 100 to 200 kilometers against diverse aerial threats, including stealth jets, drones, and even ballistic missiles.
• **Development Timeline** – The first development trials for Kusha M1 are anticipated in September 2025, with potential induction by 2028.
• Kusha M2 trials will follow in 2026, and Kusha M3 trials are projected for 2027.
• DRDO aims to complete the induction of the entire Kusha system by 2030, enhancing *Aatmanirbharta in air defence.*

Project Vishnu

India is preparing to test the Extended Trajectory-Long Duration Hypersonic Cruise Missile (ET-LDHCM), developed under DRDO's covert "Project Vishnu".

Key Capabilities of ET-LDHCM:
• **Speed** – *Achieves a maximum speed of Mach 8* (about 11,000 km/h), making it extremely difficult for current radar and air defence systems to intercept.
• **Range** – Has a range of approximately 1,500 kilometers.
• **Payload** – Can deliver conventional or nuclear warheads weighing 1,000–2,000 kg to target enemy sites.
• **Propulsion** – *Utilizes a scramjet engine*, already successfully ground-tested for 1,000 seconds, for sustained hypersonic speeds.
• **Operational Features** – *Designed for low-altitude travel and mid-flight maneuvering*, unlike predictable ballistic missiles.
• Constructed with *heat-resistant materials* (up to 2,000°C) and oxidation-resistant coatings for extreme conditions.
• Offers adaptability with multi-platform launch capabilities: from land, air, or sea.
• **Strategic Significance** – Once operational, it will enable India to conduct deep, precise strikes within enemy territory rapidly.
• India joins an elite group of countries (including the US, China, and Russia) that have perfected hypersonic missile technology.
• *Designed at the Dr. APJ Abdul Kalam Missile Complex in Hyderabad* with commercial Indian defence companies, boosting Aatmanirbharta.
• **Broader Benefits of Hypersonic Technologies** – Beyond military applications, *these technologies can strengthen India's capacities in disaster relief and aerospace development*.
• The program is expected to create thousands of jobs and provide new opportunities for Indian MSMEs in the defence ecosystem.

EXERCISE NOMADIC ELEPHANT

The 17th edition of the India-Mongolia Joint Military Exercise NOMADIC ELEPHANT recently concluded at Ulaanbaatar, Mongolia.

• **Participants** – The *Indian Army* contingent comprised 45 personnel, primarily from a battalion of the ARUNACHAL SCOUTS.
• They actively participated in the two-week-long joint exercise alongside the *Mongolian Armed Forces*.
• **Training Objective** – The primary focus was to *enhance interoperability between the two armies*.
• They trained as a combined task force for semi-conventional scenarios in semi-urban and mountainous terrain under a United Nations mandate.
• **Strategic Importance** – The conduct of EXERCISE NOMADIC ELEPHANT marks a significant milestone in India's expanding defence diplomacy.
• It underscores the strategic importance of India's partnership with Mongolia in the defence sector.

Multinational Exercise Khaan Quest

The Indian Army contingent arrived in Ulaanbaatar, Mongolia, on June 11, 2025, to participate in the multinational military exercise Khaan Quest.

• **Khaan Quest** – Began in 2003 as a bilateral initiative between the United States and the Mongolian Armed Forces.
• It evolved into a multinational peacekeeping endeavour from 2006 onwards.
• The current edition marks its 22nd iteration.
• **Aim & Scope** – The exercise aims to prepare participating armed forces for peacekeeping operations in a multinational setting.
• Its core focus is increasing interoperability and military readiness in peace support operations under Chapter VII of the United Nations Charter.
• **Tactical Drills** – The drills will include establishing static and mobile checkpoints, cordon and search operations, and patrolling.
• Other key activities involve evacuation of civilians from hostile areas, counter-improvised explosive device (IED) drills, combat first aid, and casualty evacuation.

Science

Novavax's COVID-Flu Combo Vaccine

Novavax has recently announced its experimental COVID-19-influenza combination vaccine and standalone flu vaccine in older adults.

• **Vaccine Technology** – The Novavax vaccines *are protein-based vaccines*, a traditional technology.
• They *use purified viral proteins*, offering an alternative to newer mRNA vaccines. This is relevant for Science & Technology.
• **Trial Findings** – Trial data showed a *strong immune response*, comparable to existing approved vaccines.
• This indicates the vaccine's potential efficacy.
• Both vaccine candidates were well-tolerated with no new safety concerns.
• This is crucial for widespread acceptance and regulatory approval processes.
• **Regulatory Pathway** – Current data will show the design of future late-stage studies.
• This highlights the multi-phase process of vaccine development and approval, a key aspect of Government Policies.
• **Public Health Impact** – A combined COVID-flu vaccine could simplify vaccination campaigns and improve compliance.
• This would enhance protection against two major respiratory diseases, easing healthcare burdens.
• **Commercial Strategy** – Novavax is focusing on partnerships for further development and commercialization.
• This demonstrates the role of collaborations in pharmaceutical innovation and access to medicines.

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