Current Affairs - 16 August 2026

80th INDEPENDENCE DAY ADDRESS

- In his 13th Independence Day address from the Red Fort, Prime Minister Narendra Modi outlined **a comprehensive roadmap** towards Viksit Bharat @2047.
- He emphasised on youth empowerment, economic reforms, technological leadership, self-reliance (Atmanirbhar Bharat), national security and governance reforms.
- The speech came against the backdrop of recent youth protests over employment and examination issues.

Youth at the Centre of Development:

- Recognising concerns over employment, technology and competitive examinations, the Prime Minister made **youth** the **central theme** of his address.
- **Key announcements:**
    - **AI Skill Mission**: Training 1 crore youth in Artificial Intelligence within one year.
    - **Free Online Coaching**: A nationwide digital platform using Digital Public Infrastructure (DPI) to provide free coaching for competitive examinations, reducing dependence on costly private coaching.
    - **Sports Talent Mission**: National talent hunt for children aged 5–16 years to prepare India for the 2036 Olympic Games bid.
    - Youth were encouraged to participate in the **Census** and assist families in digitising household information for better governance.

'Saptadhara' – Seven Pillars of Economic Transformation:

- The Prime Minister introduced "Shakti ki Saptadhara", **seven reform** streams aimed at making India a globally competitive manufacturing and export-oriented economy.
- **Manufacturing excellence:** Focus on quality manufacturing, complete domestic value chains and globally competitive products. Transition from "Make in India" towards higher-value manufacturing.

- **Agriculture and food processing:** Promote food processing industries, enable farmers to access global markets through Free Trade Agreements (FTAs), and shift from farm to export market.
- **Technology and innovation:**
    - Strengthen India's capabilities in AI, Quantum Computing, Robotics, Space Technology, Data Centres and Semiconductors.
    - Three semiconductor plants are already operational; 5–8 additional plants expected in the next few years.
    - India aims to become a **global innovation hub** instead of merely a technology consumer.
- **Logistics and connectivity:** Expand PM GatiShakti and multimodal infrastructure, and improve logistics efficiency to boost exports and competitiveness.
- **Defence and national security:** Increase indigenous defence production and defence exports. Strengthen advanced defence technologies under Atmanirbhar Bharat.
- **Green and blue economy:** Promote renewable energy, green hydrogen, clean technologies and marine resources for sustainable growth.
- **India's soft power:** Leverage India's culture, creativity and civilisational heritage to enhance global influence.

Other Highlights of his Address:

- **National security and civil defence:**
    - **Changing nature of warfare**: Acknowledging evolving security threats, the Prime Minister announced a comprehensive restructuring of civil defence infrastructure.
    - **Future conflicts may target**: Data centres, banking systems, refineries, critical infrastructure, and industrial facilities.
    - The government will continue implementing **Mission Sudarshan Chakra**, integrating AI, cybersecurity and multi-layered defence systems.

GREEN INDIA MISSION - ACHIEVEMENTS, CHALLENGES AND CAG AUDIT FINDINGS

- A recent Comptroller and Auditor General of India (CAG) audit has flagged major shortcomings in the implementation of the Green India Mission (GIM), including inadequate funding, weak convergence with other schemes, poor monitoring and significant shortfalls in achieving forest-cover targets.

Green India Mission

- The National Mission for a Green India is one of the eight missions under India's National Action Plan on Climate Change (NAPCC).
- It was launched by the Ministry of Environment, Forest and Climate Change (MoEFCC) in 2014, with implementation activities beginning in 2015-16.
- The Mission adopts a landscape-based approach to protect, restore and enhance forest and tree cover while improving ecosystem services and the livelihoods of forest-dependent communities.
- It combines climate-change mitigation with adaptation by focusing on carbon sequestration, biodiversity, water security and livelihood enhancement.
- **Objectives of GIM**
    - Increase forest and tree cover.
    - Improve the quality of existing forest and tree cover.
    - Enhance ecosystem services such as biodiversity, water and carbon sequestration.
    - Increase livelihood incomes of forest-dependent households.
    - Enhance annual carbon sequestration.
- The mission envisages increasing forest and tree cover over 5 million hectares and improving the quality of forest and tree cover over another 5 million hectares.

Achievements of the Green India Mission

- The Mission has supported afforestation and eco-restoration activities across several States and Union Territories.

- According to the MoEFCC Annual Report 2024-25, Rs. 944.48 crore had been released to 17 States and one Union Territory since 2015-16 for plantation activities covering 1,55,130 hectares in forest and non-forest areas, along with livelihood-improvement activities for forest-dependent communities.
- More recent government information indicates that GIM activities have expanded further. As of March 2026, Rs. 1,019.26 crore had been released under the Mission.
- The broader improvement in India's forest and tree cover also provides important context.
- According to the India State of Forest Report (ISFR) 2023, forest and tree cover together account for 25.17% of India's geographical area, comprising 21.76% forest cover and 3.41% tree cover. India has recorded a cumulative increase of 4.83% in forest and tree cover since 2013.
- The Government has also reported that India ranked third globally in annual net forest gain, according to the FAO Global Forest Resources Assessment 2025. However, these broader national trends should not automatically be attributed solely to GIM, as several programmes contribute to India's overall forest and tree-cover outcomes.

Green India Mission and India's Climate Commitments

- GIM is particularly important because forests are a major component of India's climate strategy. Under its Nationally Determined Contribution (NDC), India has committed to creating an additional carbon sink of 2.5-3 billion tonnes of CO_2 equivalent through additional forest and tree cover by 2030.
- Therefore, the effectiveness of programmes such as GIM has implications beyond afforestation. Healthy forests contribute to:
    - Carbon sequestration
    - Biodiversity conservation
    - Water regulation
    - Soil conservation
    - Climate resilience
    - Livelihoods of forest-dependent communities

RSVC-AMRIT PLATFORM

Recently, the Principal Scientific Adviser to the Government of India launched the RSVC AMRIT platform.

- It is developed by **NABARD in collaboration** with the **Office of the Principal Scientific Adviser** (OPSA) to the Government of India.
- AMRIT Platform serves as the **digital backbone of the RuTAGe Smart Village Centre** (RSVC) ecosystem.

Focus: It **supports rural innovation and technology transfer** and enabling wider adoption of appropriate technologies in rural areas.

- It is **designed as a comprehensive digital ecosystem** supporting the **complete RSVC lifecycle**, from technology discovery and validation to deployment tracking, collaboration, monitoring and knowledge management.
- It will progressively **bring together innovators, technology providers**, startups, validators, accelerators, implementation partners, funding agencies, academic institutions and rural communities on a shared platform.

What is The Rural Technology Action Group (RuTAG)?

- It is an initiative of the **Office of the Principal Scientific Adviser** (OPSA) which was launched in 2004.
- It was conceptualized as a mechanism to **provide a higher level of Science &Technology** intervention and **support for rural areas.**

Objectives of RuTAG Initiative:

- **Connecting Stakeholders:** Collaborating with **stakeholders Non-Government Organizations**, Self Help Groups, Community Organizations, and Start-ups to identify sector-specific technology needs.
- **Demand-driven technologies:** Developing technologies based on **socio-economic data coherent** with national/regional priorities.
- **Prototype Validation:** Validating developed prototypes and explored commercialization with scalability aspects.
- **Commercialization:** Commercializing the potentially validated technologies for national/global markets.

SRAVAANI

- It is the **first multilingual Indian speech recognition model.**
- It extends automatic speech recognition to **several regional and non-scheduled Indian languages** that remain underserved by existing speech technology.
- It covers **20 scheduled languages** and 45 regional languages and dialects.
- It can convert **spoken words into text across 10 scripts** and automatically identify the language being spoken, without users having to select one first.
    - **Examples:** It supports languages such as **Garo, Angika, Chakma, Kokborok, Tulu, Bundeli and Bajjika.**
- The SraVaani model is based on **Project Vaani, one of IISc's major programs**, to understand the linguistic diversity of India.
    - SraVaani uses a **FastConformer-based automatic speech recognition**

Applications: It could support applications in areas such as **education, digital services, banking, healthcare, e-governance** and customer support, particularly where users prefer interacting in regional languages.

CHIPS TO START-UPS PROGRAMME

- It is an umbrella capacity-building initiative launched by the **Ministry of Electronics and Information Technology (MeitY) in 2022.**
- **Target:** It targets the **development of industry-ready professionals** across undergraduate, postgraduate, and doctoral levels.
- It aims to catalyse the incubation of **start-ups and** enable **technology transfers.**

Features of Chips to Start-Up Programme:

- It seeks to provide access to **SMART lab facilities**, train students, generate patents, and support focused research publications.
- It **supports innovation, enhances employability**, and enables academic institutions to play a more active role in India's semiconductor value chain.
- **Programme Approach and Implementation:**
  - The C2S Programme adopts a comprehensive approach, providing **students with hands-on experience in chip design, fabrication, and testing.**
  - **Training:** It is achieved through regular training sessions in collaboration with industry partners, combined with mentorship and practical support.
  - **Access:** Students gain access to advanced chip design tools, fabrication facilities, and testing resources, including state-of-the-art EDA software and semiconductor foundries.
  - **Prototype:** These opportunities also include implementing R&D projects under the C2S Programme to develop working prototypes of Application-Specific Integrated Circuit (ASICs), Systems-on-Chip (SoCs), and Intellectual Property (IP) Core designs.

PM MODI'S 100 GW NUCLEAR TARGET: POWERING INDIA'S AI AND CHIP FUTURE

- PM Modi highlighted that the growing adoption of future technologies would sharply increase electricity demand: "It will be difficult to run this new world without energy... whether it is chips, AI or data centres, we will need very large amounts of electricity."
- Nuclear power is being positioned as a carbon-neutral, reliable baseload source to meet this demand alongside the growing renewable energy mix.

Policy Backdrop: The SHANTI Act

- Parliament passed the SHANTI Act last year, which:
  - Opens the door to wider private participation in India's tightly regulated civil nuclear power sector.
  - Has drawn interest from global nuclear technology suppliers from Russia, the US, and France.
- The Department of Atomic Energy (DAE) recently released draft rules under the Act, laying out the regulatory framework for private participation, captive generation, licensing, safety oversight, and nuclear liability.

Two-Pronged Strategy: Large Reactors + SMRs

- To achieve the 100 GW target by 2047, the government is pursuing a two-pronged approach:
  - Large-capacity reactors — continuing to expand conventional nuclear capacity.
  - Small Modular Reactors (SMRs) — for faster, more flexible deployment.
- **Why SMRs Matter?**
  - India's indigenous Pressurised Heavy Water Reactors (PHWRs) will remain the backbone of nuclear expansion, but SMRs are gaining importance for industrial decarbonisation.
  - SMRs offer flexible baseload power, helping grid operators balance the variability of large-scale renewable energy integration.

- High costs of large Light Water Reactors (LWRs) have raised questions about their large-scale feasibility, making SMRs the focal point of India's international nuclear collaborations.
- In May 2026, a high-level American nuclear delegation was briefed on India's plans to enter the SMR manufacturing value chain.

India's Indigenous SMR Programme

- The Bhabha Atomic Research Centre (BARC) is developing three types of SMRs for demonstration:
  - Bharat Small Modular Reactor (BSMR-200) — 200 MWe
  - A 55 MWe small modular reactor
  - A 5 MWt high-temperature gas-cooled reactor for hydrogen production via thermochemical coupling
- **Target:** At least five indigenously designed and operational SMRs by 2033.
- The Nuclear Energy Mission, with a budgetary outlay of ₹20,000 crore, has been launched for research, design, development, and deployment of SMRs.
- The government is also studying the repurposing of old thermal power plant sites for nuclear use, particularly suited for SMRs and smaller nuclear projects.

Current Status of India's Nuclear Sector

- 25 operational reactors, totalling 8.7 GWe capacity.
- 10 reactors under construction, adding around 8 GWe.
- 10 more units in the pre-project stage, with approximately 6.6 GWe capacity.

Conclusion

India's 100 GW nuclear ambition reflects a broader recognition that the AI-driven digital economy demands massive, reliable, carbon-neutral power.

By combining indigenous thorium-based self-reliance with SMR innovation and private participation, India aims to position nuclear energy as a cornerstone of both its technological future and climate commitments.