

## Innovative Endeavours in India – Reassessing the Risk-Reward Matrix for Advancing Innovation Gains

### Advantages of India in Terms of Innovation:

1. **World-Class Tech Talent:** India boasts a highly skilled IT workforce, contributing to its technological capabilities.
2. **Startup Ecosystem:** The country has a rapidly maturing entrepreneurial ecosystem, with over 1,12,718 DPIIT-recognized startups, making it the third-largest globally.
3. **Access to Smart Capital:** India benefits from rising Foreign Direct Investment (FDI) and a healthy state of banks, providing access to smart capital and significant financial resources.
4. **Strong Academic Institutions:** Renowned institutions like IITs, IIMs, and IIITs contribute to the availability of high-quality education and research.
5. **Supportive Policy Environment:** Initiatives like the Startup India Scheme and Funds of Funds for Startups create a favourable policy environment.

### Status of Innovation in India:

1. **Patent Filing:** India ranks 42nd on the International IP Index 2023. It lags behind top spenders in research like Israel, South Korea, Sweden, and Japan.
2. **Lack of Quality Institutions:** Over 95% of the 10,000 institutions teaching technology have not submitted any intellectual property for protection, indicating a need for quality improvement.
3. **Long-Term Innovation Strategy:** Even institutions like IITs face criticism for lacking a longer-term innovation strategy.
4. **Global Innovation Index:** India ranks 40th on the Global Innovation Index 2023, highlighting challenges in infrastructure, business sophistication, and institutions.

### Areas for Focus to Drive Innovation:

1. **Centres of Excellence:** Establish truly world-class centres of excellence, fostering strong linkages between industry, government, and academia, as seen in institutions like the Indian Institute of Science in Bangalore and select IITs.
2. **Enabling Environment for Generation Z:** Create an environment conducive to the success of India's Generation Z, leveraging their education, competitiveness, and innovative spirit.
3. **Mission Mode Innovation:** Move beyond 'jugaad' and frugal innovation to focus on world-class innovation in mission mode. Encourage long-term investments by both private industry and the government, supported by tax incentives.
4. **Leverage Technological Strengths:** Build on India's strong foundation in technology, IT services, and digital public infrastructure to position the country as a global innovation powerhouse.

**UPSC Syllabus Topic : GS paper 3- Economic development- Infrastructure (Energy) Environment- Conservation.**

**India's CoP-28 Challenges - Empowering Local Climate Actions to Surpass Global Commitments at CoP-28**

**Challenges for India at CoP-28 and Potential Policy Responses**

**Background:** At the 28th Conference of the Parties (CoP 28), developed countries faced criticism for not meeting climate commitments. India, a developing nation, is pressured to take a leadership role in climate action. Challenges include the decision not to sign pledges for renewable energy and energy efficiency targets and not joining the Declaration on Climate and Health.

**India's Challenges at CoP-28:**

1. **Balancing Coal and Renewable Energy:** India's plan to increase coal production contradicts its commitment to achieving 450GW of renewable energy by 2030.
2. **Phase-Down of Coal Power:** India must reduce coal power (currently 75% of electricity) to align with renewable energy and energy efficiency targets.
3. **Meeting Growing Electricity Demand:** The challenge lies in addressing increasing electricity demand for an 8% economic growth rate while transitioning away from coal.

**Policy Responses for Balancing Growth and Environmental Responsibility:**

1. **Renewable Energy Expansion:** Committing to triple the renewable energy capacity to 450GW by 2030 will significantly reduce dependence on coal.
2. **Decentralized Renewable Energy:** Harnessing decentralized renewable energy in urban and rural areas enhances energy security and aligns with global trends in renewable energy business models.
3. **Integrated Approach to Climate, Energy, and Health:** Addressing climate, energy, and health issues collectively, despite the challenges of international acknowledgment, can yield significant benefits.
4. **Lifestyle for the Environment (LiFE) Initiative:** Promoting the LiFE initiative encourages behavioural changes at the individual and community levels towards more climate-friendly practices.
5. **Electric Vehicle Incentive Schemes:** Incentivising electric vehicles through sector-specific schemes indicates a potential shift towards sustainable transportation options.

These policy responses aim to strike a balance between economic growth and environmental responsibility, helping India navigate its challenges at CoP-28.

**UPSC Syllabus Topic : GS Paper 3- Indian Economy- resource mobilization (taxation).**

**Current Status and Improvement Initiatives for Goods and Services Tax (GST) in India**

**Current Status:** GST revenue has witnessed a significant increase, reaching nearly ₹3.4 lakh crore in October and November. The average monthly GST collection for 2023-24 is around ₹1.66 lakh crore. Economists anticipate that central GST receipts may surpass budget estimates.

**Improvement Initiatives:**

1. **Goods and Services Tax Appellate Tribunal (GSTAT):** The establishment of GSTAT, approved by the GST Council, is in progress to address the backlog of GST cases and expedite the resolution of taxpayer appeals.
2. **Expansion of GST Framework:** Plans are underway to include items like petroleum and electricity within the GST framework, broadening the tax base.
3. **Reconstitution of Group of Ministers (GoM):** The GST Council has notified the reconstitution of the Group of Ministers (GoM) on rate rationalisation, indicating a strategic approach to streamline and rationalise GST rates.

**Recommendations for GST Improvement:**

1. **Address Taxpayer Appeals:** Swift operationalization of appellate tribunals is essential to resolve the increasing number of pending taxpayer appeals against GST levies. With cases nearing 15,000, prompt action is crucial.
2. **Simplify Tax Structure:** Efforts should be directed towards simplifying the complex multiple-rate system of GST, making it more user-friendly and reducing compliance challenges.
3. **Ensure Stability and Predictability:** Strive for a clear and stable tax regime that provides certainty to investors and taxpayers. A predictable environment will contribute to enhancing India's economic landscape.
4. **Maintain Focus Post-Elections:** Despite potential delays due to upcoming elections, the GST Council should continue deliberating on improvements. Post the Lok Sabha election, there should be a concerted effort to fast-track the implementation of identified enhancements.

**Terminology Used:**

- **Goods and Services Tax Appellate Tribunal (GSTAT):** It is a pivotal body for resolving GST disputes, presided over by its President and comprising one Technical Member (Centre) and one Technical Member (State). GSTAT handles second-level appeals in GST laws, aiming for fair and consistent resolution of tax disputes. Its establishment under the CGST Act brings uniformity in decision-making across the country.