

Forum IAS

7 PM COMPILATION

16th to 31st July, 2023

Features of 7 PM compilation

- ❖ Comprehensive coverage of a given current topic
- ❖ Provide you all the information you need to frame a good answer
- ❖ Critical analysis, comparative analysis, legal/constitutional provisions, current issues and challenges and best practices around the world
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India-France relations: significance and challenges – Explained, pointwise**Introduction**

Recently, Prime Minister Narendra Modi visited France on the 25th anniversary of the India-France strategic partnership. The visit was special as the Prime Minister was invited to be the chief guest at the Bastille Day parade. The visit concluded with the signing of several agreements and a series of defense deals. The two countries also outlined a roadmap for the next 25 years of India-France ties (Horizon 2047) which herald a new phase in India's relations with France.

What are outcomes of the Indian PM's recent visit?

“**Horizon 2047**” agreement was signed. It included the strategic road map for the next 25 years. It has three pillars — 1) Partnership for security and sovereignty 2) Partnership for the planet and 3) Partnership for the people.

This agreement includes a variety of fields of cooperation i.e., defence, space, nuclear energy, climate change and green transitions as well as education and people-to-people ties. Through this roadmap, the India-France Strategic Partnership will further diversify into new areas of cooperation while also deepening existing programmes of shared interest.

A roadmap to cooperate in the Indo-Pacific region was also released. The agreement includes military and naval exchanges and a trilateral development fund to help countries in the Indo-Pacific region.

Under defence cooperation, Safran, the French company and the DRDO (Defence Research and Development Organisation) will jointly develop jet engines for the advanced medium combat aircraft. Submarines are proposed to be jointly built by Mazagon Dock Shipbuilders and the Naval Group of France.

A brief background of India-France relations

India and France have **traditionally close and friendly relations**. In 1998, the two countries entered into a Strategic Partnership which is symbolic of their **convergence of views** on a range of international issues apart from a close and growing bilateral relationship.

The areas of **defence & security cooperation, space cooperation and civil nuclear cooperation** constitute the principal pillars of our Strategic Partnership. Apart from these, India and France are increasingly engaged in new areas of cooperation such as **maritime security in the Indo Pacific region, counter terrorism, climate change, renewable energy and sustainable growth and development** among others.

India and France support a **multi-polar world order**. France has continued to support India's claim for permanent membership of the United Nations Security Council and the reforms of the United Nations. France's support was vital in India's accession to the Missile Technology Control Regime (MTCR), Wassenaar Arrangement (WA) and Australia Group (AG). France continues to support India's bid for accession to the Nuclear Suppliers Group (NSG).

India and France have consistently **condemned terrorism** and have resolved to work together for adoption of the Comprehensive Convention on International Terrorism (CCIT) in the UN.

India and France also have a **robust economic partnership**. French businesses and industry have forged linkages with the Indian economy and contribute significantly to India's goal to

become an Atmanirbhar Bharat. There are over 1000 French businesses in India in different sectors. France is the 7th largest foreign investor in India representing 2 % of the total FDI inflows into India (2020).

What is the significance of the India and France relations?

Strategic autonomy: France-India strategic relationship is built on a respect for each other's strategic autonomy. For example, unlike other European countries, France has avoided any comment on India's internal affairs or its foreign policy choices, like Russia's war in Ukraine.

On the other hand, India also avoided any mention of the violence in France after the killing of a teenager belonging to the Algerian immigrant community.

Both countries are happy with their bilateral relations and show no desire to pull the other into a coalition, grouping or alliance the other is a part of.

French support after nuclear tests: In 1974, and in 1998, France did not join the western push to sanction India for its nuclear tests either; it even stepped in with uranium supplies to power the Tarapur reactors.

Strategic partnership: Franco-Indian strategic partnership comes at the top in comparison to 30 strategic partnerships with various countries. It has remained strong during difficult or good times.

Franco-Indian strategic partnership covers all dimensions of a full spectrum partnerships, like defence, space, climate change, critical technologies and people-to-people ties.

After the recent visit, Franco-Indian defence ties has developed from a mere buyer-seller model to that of jointly designing, developing and co-producing.

Indo-pacific: France maintains a notable presence as a resident power in the Indo-Pacific region, with overseas territories such as La Reunion, New Caledonia, and French Polynesia, and military bases in the area.

Joint exercises between the two countries, use of French military bases by Indian forces and achieving real-time maritime domain awareness in the Indian Ocean are of paramount importance for India.

China: India can counter China in the maritime space with the active support of France along with Quad partners.

Russia: Gradually France is replacing Russia as a major defense partner of India. Major reasons behind gradual shift in Russia- India defence relations are: First, after invasion of Ukraine, Russia is facing many internal and external challenges. Second, Russia is moving increasingly close towards China.

Technological assistance: The collaboration between India and France in domains such as supercomputing, cloud computing, artificial intelligence, and quantum technologies holds significant importance for India's future and has the potential to shape the course of their relationship for the next 25 years.

Horizon 2047 agreement is an indication that France understands that no global problem can be tackled meaningfully without India's participation. France is also determined to support India's candidature for permanent membership of the UN Security Council

What are challenges in India-France relationship?

The **Rafale deal** did not find mention in the joint communiqué, issued after the Paris summit between Mr Modi and French President Emmanuel Macron. Reference to the construction of three more **Scorpene submarines** was dropped from a later version of the bilateral statement “Horizon 2047”.

The French President signaled his country’s discomfort with the United States’ China containment policy with a state visit to Beijing. Also, France’s stand on China’s BRI contrasts with that of India. Therefore, France **might not be a reliable partner in case of confrontation China**.

Seven years after a Memorandum of Understanding (MoU) was signed between India and France for setting up the world’s largest **nuclear power plant at Jaitapur** (Maharashtra), the project has not seen much progress.

France is strong enough to have something to offer on the diplomatic, military, space, and nuclear sectors to India, but **not strong enough to shape international order, norms, or rules, or to balance China** if tensions escalate. While India holds significance for France, particularly in trade and defense cooperation, it may not be considered the foremost partner when addressing critical challenges such as Russian aggression or terrorism in Africa.

France’s GDP is almost equal to that of India’s, but **bilateral trade remains far below potential**. Trade with France constitutes only 1.41% of India’s total international trade.

Conclusion

The divergence between India and France on the **war in Ukraine** has not endangered the development of their bilateral ties. This is because of the trust developed between the two countries over the last 25 years and **mutual understanding** of each other’s positions on the subject

France and India are making strategic commitments to each other for the long term. These two middle powers share a **similar worldview**. Both nations pursue independent foreign policies and value strategic autonomy, as they believe it will empower them to influence a multipolar world. Importantly, both countries recognize that their collective efforts will significantly enhance the likelihood of achieving this goal.

Sources: [The Hindu](#), [Indian Express \(Article 1 and Article 2\)](#) and [Business Standard](#)

WTO reforms and India: Explained, pointwise

Introduction

During Prime Minister Narendra Modi’s official state visit to the U.S., a significant outcome was the resolution of six long-standing trade disputes at the World Trade Organization (WTO). This achievement was unprecedented and stands as a remarkable example of bilateral cooperation between India and the U.S. to settle disputes in various sectors.

What were the disputes that were settled?

India's National Solar Mission: The mission was challenged for the domestic content requirements with the U.S. seeking authorisation from the WTO's Dispute Settlement Body for trade retaliation, which India contested. India also contested certain sub-federal renewable energy schemes in the U.S. and won the case. However, over time, some of these schemes expired or were modified, making enforcement of the WTO panel ruling challenging. The dispute was set to reach the Appellate Body, where it could have remained unresolved for an extended period of time.

India's foreign trade policy schemes: India also settled disputes related to some of its foreign trade policy schemes, including the special economic zone (SEZ) and export-oriented unit schemes.

Section 232 tariffs: Two ongoing disputes involving the controversial Section 232 tariffs imposed by the U.S. on steel and aluminium were also resolved. (Section 232 of the Trade Expansion Act of 1962 authorizes the President of the United States, through tariffs or other means, to adjust the imports of goods or materials from other countries if it deems the quantity or circumstances surrounding those imports to threaten national security.) The U.S. will consider exclusions from Section 232 measures with approval rates for Indian steel and aluminium products, while India will remove retaliatory duties on certain U.S. agricultural imports.

Read more: [Dispute Settlement System of the WTO](#)

What are the other disputes involving India at WTO?

Tariff treatment on ICT goods (India v/s Japan, EU): India has moved the WTO Appellate Body against a WTO panel ruling that said its import duties on some information and technology products are inconsistent with global trade norms.

Measures concerning sugar & sugarcane (India v/s Guatemala, Brazil, Australia): India had also appealed against a ruling of WTO's panel which said that the country's domestic support measures for sugar and sugarcane are inconsistent with global trade norms. Currently, India is in negotiations with Brazil to resolve the dispute.

Peace Clause: Recently, during the special session of the agriculture committee of the WTO, India urged the body to find a permanent solution to the issue of farm subsidies and public stockholding for food security. Any alternative plan has to be better, and more practical, than the present Peace Clause-based interim arrangement.

Why does the WTO need to be reformed?

Special and Differential Treatment (S&DT): As WTO members are from different income levels, S&DT ensures a balance between developed and developing countries by providing concessions in enforcement and compliance with rules. But there are no clear criteria for defining developing countries.

While the UN criteria is used for categorizing Least Developed Countries, developing countries are defined based on 'self-declaration'. This provision has been misused by some high-income countries like S Korea in the past and China in the present.

Rule Making Through Consensus: The WTO governance model of 'Consensus' decision making has often resulted in deadlocks due to wide differences between developed and developing

countries. This has not only reduced the effectiveness of WTO as a forum for trade cooperation but also resulted in repercussions like members shifting to bilateral and regional trade cooperation and the rising significance of Plurilateral Agreements.

Transparency and Monitoring: Members' notifications is the main information used by WTO for deliberations in WTO committees and councils. These notifications are submitted by member countries and provide essential information about their trade policies, measures, and other relevant developments that may have an impact on international trade.

However, there are often coverage gaps in these notifications. Some member countries may not fully comply with the notification requirements, leading to incomplete or delayed information. These gaps can pose challenges for the WTO's decision-making processes.

Dispute Settlement: Adjudication of trade conflicts is an important function of WTO. This determines the sanctity of negotiated agreements and thereby influences future negotiations as well. Although there are criticisms on jurisdictional parameters, the non-functioning of Appellate Body since 2019 is a hurdle that needs to be overcome.

Shift to Plurilateral Agreements: There has been a shift towards plurilateral agreements like the TPP Agreement. Plurilateral Agreements favor developed countries more as they are able to push their interests (developing countries have less negotiating power) unlike WTO where all agreements happen through consensus.

'Most favoured nation' status: Under this principle, a country must give the same treatment to all other trade partners who are members of the WTO. This can lead to a price war which can hurt domestic industries as the country is not able to protect domestic industry from the cheaper imports.

What reforms has India suggested?

India has recently issued a comprehensive proposal called “**30 For 30**”, a member-led effort to bring at least 30 operational improvements to the WTO before the Organization completes 30 years, i.e., by 1 January 2025.”

The proposal aims to improve the functioning of various bodies/committees of the WTO to bring about efficiency and effectiveness.

India has suggested **34 operational changes** including a year-long cooling-off period before hiring a diplomat in any role in the organisation, resolving old issues before picking up new ones, and a time-bound work programme to make dispute settlement more accessible for developing countries.

Implementing the suggested incremental changes could be done swiftly since they involve **straightforward measures to enhance the operational efficiency of the organization**. Developing a shared understanding among members regarding these proposals would be relatively simple due to their nature.

What has been the contribution of the WTO?

Dispute resolution: As trade expands in volume, in the numbers of products traded, and in the numbers of countries and companies trading, there is a greater chance that disputes will arise. The WTO system helps resolve these disputes peacefully and constructively.

Voice to smaller countries: The WTO does reduce some inequalities, giving smaller countries more voice, and at the same time freeing the major powers from the complexity of having to negotiate trade agreements with each of their numerous trading partners.

Reduced costs: The WTO's global system lowers trade barriers through negotiation and applies the principle of non-discrimination. The result is reduced costs of production (because imports used in production are cheaper) and reduced prices of finished goods and services, and ultimately a lower cost of living.

Way Forward

Issues like Environment, labour laws need to be put on hold at the moment. More essential issues relevant to the interests of the developing countries, like unresolved issues on Agriculture etc. need to be resolved first.

While the plurilateral approach is a welcome development for rulemaking, there is a need to develop a multilateral governance framework for plurilateral agreements. This governance framework should include key principles of non-discrimination, transparency, and inclusivity.

Sources: [The Hindu](#)

Enforcement Directorate: Significance and Criticisms – Explained, pointwise

Introduction

The Enforcement Directorate (ED) has been criticized for taking on roles similar to a policing agency and has faced accusations of targeting political opponents of the government. Recently, the Supreme Court has invalidated the third extension of tenure given by the government to the Director of Enforcement Directorate. The judgement has brought back the issue of ED's functioning into public debate.

Read more: [Supreme Court asks ED chief to quit; but upholds amendments](#)

About the Enforcement Directorate

ED is a multi-disciplinary organization mandated with investigation of offences of money laundering and violations of foreign exchange laws. It is a non-statutory body under the Department of Revenue, Ministry of Finance.

The statutory functions of the agency include enforcement of following Acts:

1. **The Prevention of Money Laundering Act, 2002 (PMLA):** ED has been given the responsibility to enforce the provisions of the PMLA. It conducts investigation to trace the assets derived from proceeds of crime and ensures prosecution of the offenders and confiscation of the property by the Special court.
2. **The Foreign Exchange Management Act, 1999 (FEMA):** The ED has been entrusted with the responsibility of investigating suspected violations of foreign exchange laws and regulations. Additionally, it has the authority to adjudicate cases and impose penalties on those found to have contravened these laws.
3. **The Fugitive Economic Offenders Act, 2018 (FEOA):** Under this law, the agency is mandated to seize the properties of fugitive economic offenders who have fled from India to evade arrest.

4. **Sponsoring agency under COFEPOSA:** Under the Conservation of Foreign Exchange and Prevention of Smuggling Activities Act, 1974 (COFEPOSA), the ED is empowered to sponsor cases of preventive detention regarding contraventions of FEMA.

How has the ED evolved with time?

The ED was founded as “**Enforcement Unit**” within the Department of Economic Affairs of Ministry of Finance in 1956. It was renamed as “Enforcement Directorate” in 1957.

It originally handled Exchange Control Laws violations under the **Foreign Exchange Regulation Act, 1947 (FERA '47)**. Under this act, the ED had the power to arrest for FERA violations, but the scope of powers was limited as the ED’s domain was largely limited to the corporate world.

The administrative control of the ED was transferred from the Department of Economic Affairs to the Department of Revenue in 1960.

The nature of ED changed as India changed. In the **pre-liberalisation era**, the laws driving ED were “**regulation**” laws whereas **post-liberalisation**, those became “**management**” laws. For example, FERA 1973 [which replaced FERA 1947 became the Foreign Exchange Management Act, 1999 (FEMA).

Under FEMA, 1999, ED lost its power to arrest people or take them into custody as forex violations amounted to civil offenses, compoundable after payment of a fine.

ED’s **powers increased significantly after the enactment of PMLA, 2002** because the act re-empowered ED with the powers of criminal prosecution. The 2009 and 2013 amendments widened the scope of PMLA and provided further powers to the ED.

Recent expansion of powers

In 2022, the Centre has amended a **2006 notification** to list 16 entities which will have to mandatorily share information with the Enforcement Directorate (ED) under **Section 66** of the PMLA. Among these are the National Investigation Agency (NIA), the Competition Commission of India (CCI), the Serious Fraud Investigation Office (SFIO), and State Police Divisions. This has further widened ED’s powers.

Again, in 2022, the **Supreme Court upheld the amendments** made to the PMLA through Finance Acts. It gives the ED virtually unchecked powers of summons, arrest, and raids, and makes bail nearly impossible while shifting the burden of proof of innocence on to the accused rather than the prosecution.

How ED is different from other policing agencies?

Predicate offence: A predicate offence (a crime that is a component of a more serious crime) is essential to charge someone of money laundering. The investigation and prosecution of the predicate offence is done typically by the Central Bureau of Investigation (CBI) or the State Police while the ED investigates the money laundering aspects.

Inquiry is not investigation: Section 50 of the PMLA provides powers of a civil court to the ED authorities for summoning persons suspected of money laundering and recording statements. However, the Supreme Court held in **Vijay Madanlal Choudhary v. Union of India** (2022) that ED authorities are not police officers and an inquiry under the Section 50 of the PMLA is not ‘investigation’ in strict sense of the term for initiating prosecution.

Other differences: In court, any statement given by an accused to the police is not admissible as evidence, but a statement made to an ED authority is considered admissible. While the accused can access a copy of the First Information Report (FIR), the Enforcement Case Information Report (ECIR) is rarely made available to them.

What is the significance of ED?

Economic crimes are far more serious than crimes against individuals as they injure the economic and social fabric of society. Therefore, these crimes should be dealt with differently and the consequences for the offender should be severe. The role of ED becomes important in this context. The agency is tasked with enforcing economic laws and combating economic crimes in India, like money laundering, foreign exchange violations and financial fraud.

Corruption, especially in the higher echelons, increases inequality, decreases popular accountability and political responsiveness. It damages the health of the economy and makes foreign businesses and investors shy away. The ED contributes to the fight against corruption by investigating the money laundering aspects.

What are the criticisms of ED?

Wide powers: The ED has a set of powers that even CBI or state police forces don't have. Some of these powers are: 1) Statement before ED is admissible in court as evidence. 2) All offences under PMLA are non-bailable. 3) The burden of proof is on the accused. Critics argue that these wide powers are liable to be misused.

Transparency: There is a lack of transparency in the way the ED functions. It is not known how the ED chooses its cases and what is the basis of picking a particular case. Also, ECIR, the equivalent of FIR, is considered an internal document and not given to the accused.

Use of PMLA for ordinary crimes: There have been allegations that the PMLA has been invoked in the investigation of ordinary crimes, leading to the attachment of assets of innocent individuals by the authorities.

Low conviction rates: Since 2005, the ED has registered 5,906 cases but disposed only of 25 cases, a mere 0.42% of the total cases.

Political bias: Critics often allege that the government is weaponising the ED by silence its critics, especially against the opposition leaders. A report published in The Indian Express in 2022 found that close to 85% of the cases involving politicians were registered against those from the opposition.

Way forward

While the ED possesses substantial powers under PMLA, it is essential to ensure they are not misused against political opponents. Investigations should not be employed as a means of punishment, and efforts should be made to expedite case resolutions to achieve swift trials and convictions.

The ED must demonstrate fairness and impartiality by putting more facts in the public domain to show that its actions are justified and command credibility among the public.

The agency can be made an autonomous body to enhance its independence and improve the ED's image as a reputed agency against economic offenses in our country.

Sources: The Hindu ([Article 1](#) and [Article 2](#))

National Multidimensional Poverty Index: Explained, pointwise

Introduction

India has made significant progress in reducing multidimensional poverty. According to the National Multidimensional Poverty Index: A Progress Review 2023, prepared by the NITI Aayog, the share of the population classified as multidimensionally poor declined by almost 10 per cent between 2015-16 and 2019-21. In absolute terms, 135 million people are estimated to have exited multidimensional poverty during this period. The national MPI (Multidimensional Poverty Index) is a vital indicator in measuring the progress towards Sustainable Development Goals, which include reducing the proportion of people living in poverty by half “in all its dimensions” (**SDG 1.2**). The second edition of MPI is based on the National Family Health Survey (2019-21) but it doesn't capture the impact of the pandemic.

What is multidimensional poverty?

Historically, poverty estimation was done by mainly focusing on one-dimensional measures – usually based on **income**. However, there was criticism that monetary and consumption-based poverty measures fail to capture the impact of lack of other non-monetary factors on standard of living.

It has been recognized that **poverty has multiple dimensions** that affect individuals' experiences and quality of life. Qualitative aspects of life such as access to basic services like water and sanitation that may not be directly related to household income, constitute an important part of poverty measurement.

This realization has led to a growing consensus that **non-monetary measures must complement monetary measures**, and that income is only one aspect of well-being and not its sole determinant. Multidimensional poverty includes the **various deprivations experienced by poor people** in their daily lives – such as poor health, lack of education etc.

Niti Aayog's national Multidimensional Poverty Index is based on the global Multidimensional Poverty Index. It captures overlapping deprivations in three equally weighted dimensions – **health, education, and living standards**. While the global MPI considers 10 indicators across health, education, and living standards, Niti Aayog's national MPI adds two more indicators to the list – **maternal health and bank account**.

How is it different from normal measures of poverty?

Simple headcount ratios or poverty rates **do not provide any insights on the depth of poverty**.

It is possible that while the number of poor individuals captured by the headcount ratio reduces, the **poorest may, in fact, get even poorer**. Alternatively, gains among the poor may be completely missed unless they cross the 'poverty line' or exit poverty.

To address this, the MPI presents not just the **extent of poverty** (the headcount ratio), but also the **depth of poverty** captured by the 'MPI value'.

What are the findings of Niti Aayog on multi-dimensional poverty in India?

All 12 indicators saw improvement. India's national **MPI value has nearly halved** from 0.117 to 0.066.

The proportion of population in multidimensional poverty reduced from 24.85 per cent to 14.96 per cent between 2015-16 and 2019-21.

This **reduction of 9.89 percentage points** indicates that about **135.5 million (13.5 crore) people have been pulled out of poverty** during this five-year period.

Read more: [What are the key findings of the National Multidimensional Poverty Index 2023?](#)

Does the Global MPI report corroborate Niti Aayog report?

Findings from the UNDP's Global MPI report released earlier corroborate the Niti Aayog report.

The UNDP report noted the following:

5. **415 million poor people moved out of poverty** from 2005/2006 to 2019/2021.
6. **Incidence fell from 55.1 percent to 16.4 percent.**
7. **Deprivation in all indicators declined.**
8. The **poorest states and groups**, including children and people in disadvantaged caste groups, had the **fastest absolute progress.**

What are the government initiatives for elimination of multidimensional poverty and how effective have they been?

The Government focused on improving access to sanitation, nutrition, cooking fuel, financial inclusion, drinking water, and electricity.

Initiatives such as [Swachh Bharat Mission \(SBM\)](#) and [Jal Jeevan Mission \(JJM\)](#) have improved sanitation across the country. This led to an almost **22 percentage points** improvement in sanitation deprivations.

The provision of subsidized cooking fuel through the [Pradhan Mantri Ujjwala Yojana \(PMUY\)](#) led to about **15 percentage points** improvement in cooking fuel deprivations.

Flagship programs like the [Poshan Abhiyan](#) and [Anemia Mukht Bharat](#) have contributed to reduced deprivations in health.

Initiatives like [Saubhagya](#), [Pradhan Mantri Awas Yojana \(PMAY\)](#), [Pradhan Mantri Jan Dhan Yojana \(PMJDY\)](#), and [Samagra Shiksha](#) have also played a role in significantly reducing multidimensional poverty in the country.

What are the remaining challenges in tackling multi dimension poverty?

Health: Within the health category, three sub-indicators — nutrition, child and adolescent mortality, and maternal health — showed only moderate improvement. **Nutrition deprivation** decreased by 6 per cent, **maternal health deprivation** improved by 3.3 per cent, and **child and adolescent mortality deprivation** declined by only 0.6 per cent. Lack of proper nutrition contributed nearly one-third to India's MPI.

Standard of living: While there has been a significant improvement in access to **cooking fuel**, still close to 44 per cent of India's population is still deprived of it. Similarly, while **sanitation** has improved, more than 30 per cent of the population is deprived when it comes to sanitation services. **Access to housing** also saw only marginal improvement. More than 41 per cent Indians still did not have access to housing.

Education: Though schooling years are considered, the **quality of education** in many Indian schools remains unsatisfactory. Also, insufficient years of school education contributed about 17 percent to the total national MPI, and less-than-desired school attendance contributed 9 per cent to the index.

Rural-urban divide: Although rural areas witnessed the fastest decline in poverty, there continues to be a **major disparity** between the number of people in poverty in rural and urban areas. While the incidence of multidimensional poverty is close to 20 percent in rural areas, the incidence in urban areas is a little more than 5 per cent.

What should be done?

The findings should be utilized by States and Union Territories to **identify and enhance initiatives that have facilitated progress**. This will aid in evaluating the advancements in vulnerable regions and identifying specific areas that demand targeted policy interventions to further accelerate development.

An analysis shows that the **biggest improvements were made in fields of mission-mode state action** like sanitation (SBM) and access to cooking fuel (PMUY). Similar programmes should also be launched for other indicators, especially for improving nutrition and the quality of school education.

One crucial factor hindering India's development is the scarcity of quality jobs for its growing workforce. While the government plays a vital role in offering public goods like sanitation, enhancing job opportunities enables individuals to allocate more resources to nutrition, health, and education. Therefore, alongside reinforcing the provision of public goods, policymakers should prioritize the **enhancement of job prospects**.

The progress made so far should not make policymakers complacent as India continues to face a significant number of people living in multidimensional poverty. Therefore, **continued attention and efforts are required**.

Sources: [The Hindu Businessline](#), [Indian Express](#), [Niti Aayog Report](#), [PIB](#), [Business Standard](#)

[Kurukshetra June 2023 Summary] Technologies for sustainable agriculture development- Explained, pointwise

Introduction

Traditional agricultural practices in India are frequently unsustainable and can negatively affect the environment and human health. Sustainable agricultural practices are required to ensure the long-term viability of agriculture in India. Farmers can develop sustainable farming systems by adopting advanced technologies.

Trends in Indian Agriculture

Agriculture accounts for **18.29 percent of Gross Value Added** (16.5 percent at current prices according to Ministry of Agriculture) in 2019-20 but still employs **45.6 percent of the workforce**. This indicates that a significant portion of the Indian population relies on agriculture for their livelihoods.

But the percentage of the **population employed in agriculture has gradually declined over the years** as the country has diversified its economy and developed other sectors, such as services and manufacturing.

According to the World Bank, as **of 2020, 42.1 percent** of the Indian population was employed in agriculture. **In 2000, 60.5 percent** of the population was employed in agriculture. This shows a significant shift away from agriculture in recent years.

While the agriculture sector's contribution to India's per capita GDP has declined over time, it remains an **essential sector of the economy, particularly regarding employment and livelihoods**.

What is sustainable agriculture?

Sustainable agriculture is an approach to farming that considers the **well-being of the soil, environment, and local communities in the long run**.

Its primary goal is to **address the increasing food demand without compromising natural resources** for future generations.

Sustainable agriculture ensures the production of food, fiber, and other agricultural products while safeguarding the environment, public health, human communities, and animal welfare.

It emphasizes the **conservation and regeneration of essential natural resources** like soil, water, and air to benefit future generations.

Why is sustainable agriculture important for India?

India has made significant progress in increasing agricultural output, but there is still considerable work ahead to fully adopt and implement sustainable agricultural practices.

One of the most significant challenges confronting Indian farmers is **declining soil fertility** due to the excessive use of chemical fertilisers, pesticides, and intensive farming practices.

Adopting sustainable agriculture practices in India is critical for the **long-term sustainability** of the agriculture sector.

What are the government initiatives for the agriculture sector?

The Government of India has introduced various initiatives, such as the [Pradhan Mantri Fasal Bima Yojana](#), [Pradhan Mantri Krishi Sinchayee Yojana](#), [the Soil Health Card Scheme](#) and the [National Agriculture Market \(e NAM\)](#) platform, for the development of the agriculture sector.

These initiatives are aimed at **enhancing farmer productivity, mitigating risks, improving agricultural practices and increasing income levels** in the country.

Among these initiatives, the **Pradhan Mantri Fasal Bima Yojana (PMFBY)** is significant as It offers farmers a comprehensive risk management solution with a uniform and affordable premium rate nationwide. The scheme receives around 5.5 crore farmer applications every year.

What are some technologies for sustainable farming?

Precision Farming: It involves sensors, GPS mapping, and data analytics to monitor and optimise crop performance. By using precision farming techniques, farmers can reduce the use of fertilisers and pesticides, improve water management, and increase yields.

Agroforestry: Agroforestry is a land-use integrated management system that combines trees and shrubs with crops and livestock to create a more sustainable and productive farming system. This approach can provide various benefits, including soil conservation, biodiversity conservation, and carbon sequestration.

Vertical Farming: It cultivates crops in stacked layers, usually under controlled conditions. Vertical farming can potentially increase local food production while reducing water consumption and optimising resource utilization. This makes it an appealing option for Indian urban agriculture. This method can reduce the need for pesticides and herbicides while increasing crop yields and lowering transportation costs.

Hydroponics: It involves growing plants in nutrient-rich water without soil. Hydroponics allows for efficient water and nutrient use, year-round cultivation, and reduced dependence on traditional agricultural practices. This approach can increase yields and can potentially revolutionize food production, especially in urban areas with limited space and resources.

Renewable Energy-based: Renewable energy technologies like solar and wind power, can be used to power farming operations. This approach can reduce greenhouse gas emissions and dependence on fossil fuels.

Robotics and Automation-based: Robotics and automation technologies can help reduce labour costs, improve crop yields, and reduce the use of fertilizers and pesticides.

What are the gaps in adopting sustainable agriculture?

Lack of Awareness and knowledge: It is one of the main barriers to adopting sustainable agricultural practices. Many farmers must know the benefits of sustainable agriculture practices or how to implement them effectively for widespread use of these technologies.

Limited Access to Finance: Sustainable agriculture practices often require significant infrastructure and technology investments. However, many small and marginal farmers need more access to finance to make these investments.

Inadequate Policy and Regulatory Framework: Adopting sustainable agriculture practices is not always supported by India's policy and the regulatory framework. For example, farmers may need more incentives to adopt sustainable practices, or regulations may prohibit certain sustainable practices. The National Mission for Sustainable Agriculture receives only 0.8 percent of the Ministry of Agriculture and Farmers Welfare (MOAFW) budget.

Limited Research and Development: There is a need for more research and development in sustainable agriculture practices that are appropriate for the Indian context. There is also a need for more investment in disseminating research findings and developing extension services to help farmers adopt these practices.

Lack of Infrastructure and Technical Support: Adopting sustainable agriculture practices often requires significant infrastructure and technical support, particularly in remote rural areas.

Low Productivity: The yield per hectare for most of the crops in India is significantly lower than the global average. This is a significant impediment to agricultural growth and development.

Fragmented Landholdings: The average landholding size in India is small, which makes it difficult for farmers to adopt modern farming techniques and technologies. Fragmented landholdings also make it difficult for farmers to access credit and other support services.

Lack of Market Access: Many farmers are forced to sell their produce to intermediaries at low prices, as they cannot access direct markets.

Inadequate Infrastructure: Inadequate infrastructure, such as rural roads, storage facilities, and cold chains, is a significant challenge for the agriculture sector in India.

Climate Change: Climate change poses significant challenges to the agriculture sector in India, particularly in terms of water availability, pest and disease management, and crop yields. The changing weather patterns, including erratic rainfall and rising temperatures, affect crop productivity and increase farmers' vulnerability. Women are particularly susceptible. The Global Food Security Index (GFSI) score for sustainability and adaptation decreases as gender inequality increases.

What has the government done to improve dissemination of technological information to farmers?

According to a survey conducted by the National Sample Survey Organization, **only 6% of farmers in India have access to information on modern agricultural practices.**

To address this issue, the government has launched several initiatives, such as **the Kisan Call Centre and the mKisan portal.**

The Kisan Call Centre had received **over 21 million calls** from farmers across India, indicating the importance of such initiatives in improving the dissemination of technological information to farmers.

Some agri tech startup case studies

AgriApp Technologies Pvt. Ltd works on **precision and predictive agriculture** while building a strong Agri-Ecosystem to benefit farmers, the economy and ecology. AgriApp works to fill the gap between farmers and the right kind of strategic information, thus making the farmers ready for high-efficiency technology-enabled agriculture production and marketing.

Khetee promotes **agroecological farming** through the **agroforestry model**. Khetee has created a unique fellowship programme for farmers and aspiring farmers to help them build agroecological model farms. Khetee organises training programmes for farmers regularly to help them build their capacity in regenerative farming.

Aumsat provides **precision-driven, satellite-based, AI-enabled hydrological analysis** for locating, predicting, and forecasting groundwater resources, saving cost economically and logistically by 75 percent.

Pudhuvai Green Gas Chemicals Fertilisers Private Limited is an innovative Bioenergy startup that specializes in **manufacturing organic waste agri-raw materials**. Through their unique process, they produce methane and hydrogen as valuable by-products, which are utilized as environmentally friendly green fuels.

Sense it Out is a deep-tech startup that focuses on providing **technology-driven solutions to address targeted climate change challenges** in the agriculture sector. Their product, SICCA (Sensor-based Intelligent Crop Centric Automation), leverages indigenously developed sensor technology to makes irrigation management more competent, reliable, and efficient.

Conclusion

A **multifaceted approach** will be necessary to close gaps in India's agricultural sector, necessitating investments in R&D, regulatory and policy reforms, and creating infrastructure and extension services to encourage adopting sustainable agricultural practices. **Technology must be implemented with other sustainable farming practices** to achieve sustainable farming systems.

Farmers in India have adopted various sustainable agricultural practices to ensure agriculture's long-term sustainability like crop rotation and organic farming. Furthermore, improved crop varieties, rainwater harvesting, and drip irrigation systems are examples of sustainable agricultural practices in India.

Despite adopting sustainable farming practices in India, **the country faces numerous challenges** in ensuring long-term sustainability. For example, indiscriminate pesticide and fertiliser use persists in many parts of the country, resulting in soil degradation and water pollution. Furthermore, climate change poses a significant threat to India's agricultural sustainability.

Sustainable agriculture practices have the potential to boost agricultural productivity, reduce production costs, and enhance the quality of crops. It may also promote the production of healthier and safer foods, which is beneficial to public health.

Internet Shutdowns in India: Explained, pointwise

Introduction

Recently, the nation was shaken by a viral video depicting sexual violence by a mob in Manipur, which emerged on the internet more than two months after the incident. During this period an Internet shutdown has continued in the state. Several experts argue that the internet shutdown has hidden the violence occurring in Manipur. As per media report India had maximum number of internet shutdowns and has emerged as the internet shutdown capital of the world. While reasons cited for these shutdowns include controlling hate speech, misinformation, and harmful content, state governments have ordered them for various reasons, including routine policing and administrative purposes, such as preventing cheating in exams and addressing local crime. Given these circumstances, a more thorough examination of the issue of internet shutdowns becomes imperative.

What are the legal provisions for internet shutdown?

Until 2017, India did not have a codified law to order internet shutdowns. The power to do so was vested in district magistrates under **Section 144 of the Code of Criminal Procedure**.

Section 5 of the Indian Telegraph Act of 1885 can be interpreted broadly to mean that the government has the power to impose internet shutdowns.

In 2017, **Temporary Suspension of Telecom Services (Public Emergency or Public Safety) rules, 2017** to order internet shutdowns were introduced under the Act. These rules stated that internet shutdowns can now only be ordered by the **home secretary of the union or state governments**.

Under the 2017 rules, shutdowns could be ordered where “**necessary**” or “**unavoidable**”, during a “**public emergency**” or in the “**interest of public safety**”.

What does the Supreme Court say on internet shutdown?

In 2020, the Supreme Court, in the landmark judgement in the **Anuradha Bhasin versus Union of India** case, provided a detailed set of guidelines to regulate internet shutdown orders.

The Court held that freedom of speech and expression and freedom of trade and commerce through the medium of the internet are **constitutionally protected rights under Articles 19(1)(a) and Articles 19(1)(g)**.

The apex court ruled that an **indefinite suspension of internet services would be illegal** and that orders for internet shutdown must satisfy the tests of **necessity** and **proportionality**.

The Court held that though the **Government was empowered to impose a complete internet shutdown**, any **order imposing such restrictions had to be made public** and was subject to **judicial review**.

Because of this judgment, the 2017 rules were revised in 2020, making it obligatory that any **suspension order issued must not remain in effect for more than 15 days**. Furthermore, **all such orders must be made public**.

What are the concerns with the 2017 rules on internet shutdown?

Conflict of interest: According to the rules, the oversight of internet suspension is assigned to the Review Committee, which consists entirely of executive members. This arrangement creates a conflict of interest because it concentrates the authorization, conduct, and review functions within a single arm of the government machinery.

Toothless committee: The Review Committee is empowered to only to “record its findings” but not set aside an illegal suspension order, thus making it a toothless committee.

Unreasonable timeline: The Review Committee is given five days for the review. This is not reasonable since most internet shutdowns run for less than five days.

Grounds for suspension of telecom services: Under the 2017 Rules, telecom/internet shutdowns may be ordered on grounds of public emergency and public safety. But public emergency and public safety have not been defined in the 1885 Act or the 2017 Rules.

What are the impacts of internet shutdown?

Impact on Human Rights: Internet shutdowns have deep implications on various human rights, with the most immediate impact being on **freedom of expression and access to information**. These rights serve as cornerstones of free and democratic societies, and they are crucial for the holistic development of individuals.

Economic impact: The frequent internet shutdowns are harming sectors primarily dependent on internet services such as e-commerce, tourism, and I.T. services. Shutdowns may lead to the

disruption of financial transactions, commerce, industry, labour markets and the availability of platforms for the delivery of services. Moreover, shutdowns create a climate of uncertainty for investment, which can prove disastrous for companies and for start-up ecosystems.

According to data from **Top10VPN**, the total economic impact of internet shutdowns in India has reached Rs 2,091 crore in just the first half of 2023. In contrast, the total cost of internet shutdowns for all of 2022 was Rs 1,510 crore.

Disproportionate impact on marginalized communities: According to a joint report by Human Rights Watch and Internet Freedom Foundation, marginalized communities have become particularly vulnerable during internet shutdowns. This is because under “Digital India”, **internet has become essential for access to government welfare schemes** for social protection, including NREGA, and public distribution system under the Food Security Act, and for e-governance in rural areas. For example, ration shops now require internet for Aadhaar authentication before providing subsidized food grains under the National Food Security Act.

Social impacts: It becomes harder for citizens to **contact family members** and friends in other parts of the country, or in other countries. The efforts of first responders and **healthcare providers** can also be hindered if a shutdown prevents their ability to effectively coordinate and communicate in the event of an emergency or natural disaster.

Political impacts: Governments frequently resort to internet shutdowns as a means to stifle dissent, control information, and restrict political opposition. Additionally, shutdowns profoundly impact the work of the media and journalists.

Misinformation: Experts believe that in the absence of credible information sources like news outlets, rumours can actually end up spreading even more during internet shutdowns. For example, without access to the internet to verify facts, Manipur has seen widespread rumours, hate-mongering, and fake news.

What should be done?

The **Standing Committee on Communications and Information Technology** has made several recommendations in this regard. Some of them are:

Clear parameters must be established to define what constitutes a public emergency and public safety. Additionally, an effective mechanism should be implemented to evaluate the merit of an internet shutdown.

The **review committees should be made more inclusive** by including non-official members such as retired judges and public members.

Internet shutdowns in their current form prohibit access to all types of information and services on the internet. The government should formulate a policy to **selectively restrict the use of certain services** instead of banning the internet as a whole. This will ensure minimum inconvenience to the general public and at the same time, meet objectives such as curbing misinformation.

A study should be conducted on the impacts of internet shutdowns and **their effectiveness in dealing with public safety and public emergencies**. The government should also conduct a study analysing internet shutdown rules in other democratic countries and **adopt best global practices** that suit the specific context of India.

Sources: [PRS](#), [HRW](#), [ORF](#)

Standing Committee on Statistics (SCoS): Explained, pointwise

Introduction

The Ministry of Statistics and Programme Implementation has formed a new Standing Committee on Statistics (SCoS) to advise on official data generated by the National Statistical Office (NSO). This panel will be chaired by former National Statistical Commission chief and India's first Chief Statistician Pronab Sen. The new panel will replace the Standing Committee on Economic Statistics that was formed in 2019 to advise on economic data.

About India's statistical system

The Statistical System of India has been **shaped by the constitutional division of subjects** into the Union list, State list, and Concurrent list. The collection of statistics relating to any subject is generally the responsibility of the department concerned. Several union/state government entities, therefore, have full-fledged statistical divisions or cells.

The **Ministry of Statistics and Programme Implementation (MoSPI)** came into existence as an Independent Ministry in 1999 after the merger of the Department of Statistics and the Department of Programme Implementation.

The Ministry has two wings, one relating to Statistics and the other Programme Implementation.

The **National Statistical Office (NSO)** was created in 2019 by merging the National Sample Survey Office (NSSO) and the Central Statistical Office (CSO).

The NSO is the **nodal agency** for planning and facilitating the integrated development of the national statistical system.

Besides these two wings, there is the **National Statistical Commission (NSC)** created through a government resolution on the recommendations of the **Rangarajan Commission**, which reviewed the Indian Statistical System in 2001. The NSC was constituted with a **mandate to evolve policies, priorities and standards in statistical matters**.

What are the legal provisions for data collection in India?

The legal framework for data collection in India mainly consists of two laws: **Census Act, 1948** and **Collection of Statistics Act, 2008**.

Census Act, 1948: The **Population Census**, which is a Union subject, is conducted under the Census Act, 1948. The Act has been further amended vide the Census (Amendment) Act 1993.

Collection of Statistics Act, 2008: The 2008 Act facilitates the collection of statistics related to social, economic, demographic, scientific and environmental aspects, by central, state and local governments.

Why are statistics important?

Enhance commerce and citizen welfare: Government statistics are essential for a democratic government and are used to **enhance commerce and citizen welfare**. Statistical agencies provide accurate, timely, and credible information, which informs current and future policies.

Information: A government must be aware of the **demographics** of the people it governs. Statistics are a crucial instrument for researching and comprehending a nation's **economic**

issues. Statistics aid in the analysis of economic issues including production, consumption, price, income distribution, population, unemployment, and poverty by bringing a quantitative component to qualitative claims.

Public policy: Statistics plays a key role in **planning, monitoring and evaluation of socio-economic policies and improving governance.** Availability of good data during the implementation process ensures the effective control on delivery of various public services and thus results in good governance. Statistics on infrastructure, health, educational facilities and socio-economic conditions of society are **essential to cater to the needs of planning and policy formulation.**

The importance of statistics has been growing rapidly with the greater integration and interdependence of world economies.

How is the Standing Committee on Statistics (SCoS) different from the Standing Committee on Economic Statistics?

As the new panel will replace the Standing Committee on Economic Statistics, a brief comparison between the two becomes necessary.

Mandate:

The Standing Committee on Economic Statistics was mandated to **review the framework for economic indicators** such as those pertaining to the industrial and services sectors, along with labour force statistics.

This meant its **focus was limited** to reviewing high-frequency data like the Index of Industrial Production (IIP) and the Consumer Price Index (CPI), apart from surveys and enumerations like the Economic Census, Annual Survey of Industries and the Periodic Labour Force Survey.

The Standing Committee on Statistics has a **broader mandate to review the framework and results of all surveys conducted under the National Statistical Office (NSO).** It can provide guidance to the Ministry not only on existing surveys and data sets but also to identify areas with data gaps. Furthermore, the committee is tasked with proposing solutions to fill these gaps and conducting pilot surveys and studies to refine new methodologies for obtaining more accurate and comprehensive data.

Composition:

The Standing Committee on Economic Statistics had 28 members which made reaching consensus difficult. Currently, the Standing Committee on Statistics is composed of **14 members**, including four non-official members, 9 official members, and a member secretary. The committee can have a total of 16 members, with the possibility of extending this number based on future requirements.

What is the need for the new Standing Committee on Statistics?

Survey design: Recently, members of the Economic Advisory Council to the Prime Minister have critiqued India's statistical machinery. Its chairperson Bibek Debroy has highlighted the **lack of expertise in survey design** within the Indian Statistical Service.

Data quality: In recent years, there have been concerns about the credibility of certain data from the National Sample Survey Office (NSSO), particularly regarding the various household surveys.

Even high-ranking government officials have raised questions about their methodology and findings. In 2019, the government decided to **discard the results of two significant NSSO household surveys** related to employment and consumption expenditure levels in Indian households conducted in 2017-18, due to data quality issues.

Data divorced from ground realities: Due to the lack of updated data from a recent Household Consumption Expenditure Survey (HCES), **India is currently using the 2011-12 figures** for essential economic indicators like retail inflation, GDP, and poverty rates. However, these numbers do not accurately reflect the present-day ground realities.

What are the functions of the Standing Committee on Statistics (SCoS)?

The committee's terms of reference include **reviewing the current framework** and **addressing any issues raised regarding subject, results, and methodology**.

It will also **provide advice on survey methodology**, such as sampling frame and design, and **finalize the tabulation plan of surveys**.

It will **provide guidance for conducting pilot surveys and pre-testing**, if necessary, before finalizing data collection schedules.

It will also **provide guidance on studying and exploring the availability of administrative statistics** related to surveys, as well as **identifying data gaps** and additional requirements.

The committee can also offer **technical guidance to central and state-level agencies** for surveys involving participation from states.

The committee will help finalize survey results, but the **National Statistical Commission** will have the ultimate authority to approve the publication of those results.

How can the SCoS bridge the trust deficit surrounding official data?

The new panel will help the Ministry **to address issues related to the results and methodology of surveys** which are raised from time to time.

Given the continuous evolution of survey design and features, the panel can **raise awareness among data users** regarding the intricacies involved. This effort aims to promote a better understanding and interpretation of the numbers, leading to more informed and reliable data utilization.

The SCoS is anticipated to have a vital role in resolving data quality issues and restoring confidence in India's official statistics by **aiding the NSO in finalizing survey results**.

What should be done?

To address the existing trust deficit, the SCoS can take the lead in cultivating a **culture of data trustworthiness**. This can be achieved by promoting open dialogue, addressing concerns, and embracing diverse perspectives, all of which will contribute to enhancing the credibility of India's statistical system.

Regular and timely surveys focusing on poverty, growth, employment, and unemployment estimates should be conducted, maintaining the highest standards of quality.

A new **statistical reforms commission** can be set up to address systemic problems such as the perceived lack of independence of the NSO, instances of government wanting to control the data narrative and the lack of financial and human resources.

Conclusion

The establishment of the Standing Committee on Statistics (SCoS) offers a significant chance to rejuvenate India's statistical system. The SCoS can effectively bridge the trust gap between data users and official statistics by prioritizing transparent communication. Ensuring data credibility through independent assessments by the National Statistical Commission will empower the government to make well-informed decisions.

Sources: The Hindu ([Article 1](#), [Article 2](#) and [Article 3](#)), [Indian Express](#), [MOSPI](#)

India Sri Lanka relations: Explained, pointwise

Introduction

Recently, President Ranil Wickremesinghe of Sri Lanka visited India. This was his first foreign visit since assuming the office a year ago in the midst of civic chaos fueled by economic crisis. During the visit, the two nations announced an economic-partnership vision that underscores India's commitment to ensure a prosperous Sri Lanka as key to regional stability.

What is the highlight of the visit?

The highlight of the visit was a joint statement on economic cooperation titled "**Promoting Connectivity, Catalysing Prosperity: India-Sri Lanka Economic Partnership Vision**" which lays out the vision in five areas: maritime connectivity, air connectivity, energy and power connectivity, trade, economic and financial connectivity and people-to-people connectivity.

Maritime and air connectivity: new investments will be made in developing ports and airports in Sri Lanka, resuming ferry services. Flight networks to connect Tamil Nadu and Sri Lanka's Northern and Eastern Provinces will be expanded too.

Energy and power connectivity: A major surge in energy connectivity will include developing renewable energy, wind and solar plants in Sri Lanka.

Trade connectivity: India and Sri Lanka will increase trade, and India will continue support for Sri Lanka's economy. A memorandum of understanding was signed to operationalise UPI digital payments in Sri Lanka and to designate the Indian Rupee as currency for trade.

People-to-people connectivity: The two countries also agreed to explore ways of enhancing tourism and cultural and religious travel, and educational collaboration.

About India Sri Lanka relations

Historical and cultural relations: India and Sri Lanka have a shared legacy of historical, cultural, religious, spiritual and linguistic ties that is more than 2,500 years old. Buddhism is one of the strongest pillars connecting the two nations and civilizations from the time of the Great Indian Emperor Ashoka.

Commercial Relations: India and Sri Lanka enjoy a vibrant and growing economic and commercial partnership, which has witnessed considerable expansion over the years. The entry

into force of the India-Sri Lanka Free Trade Agreement (ISFTA) in 2000 contributed significantly towards the expansion of trade between the two countries. India has traditionally been among Sri Lanka's largest trade partners and Sri Lanka remains among the largest trade partners of India in the SAARC. India was Sri Lanka's largest trading partner with an overall bilateral trade of USD 5.5 billion in 2022.

India is also one of the largest contributors to Foreign Direct Investment in Sri Lanka. According to the Central bank of Sri Lanka, the total FDI from India so far exceeds US\$ 2.2 billion. In 2021, India was the largest source of FDI which amounted to US\$ 142 million.

Development Cooperation: Sri Lanka is one of India's major development partners and this partnership has been an important pillar of bilateral ties between the two countries over the years. With grants alone amounting to around USD 570 million, the overall commitment by India is more than USD 3.5 billion. Demand-driven and people-centric nature of India's development partnership with Sri Lanka have been the cornerstone of this relationship. Grant projects cut across sectors such as education, health, livelihood, housing, industrial development etc.

Maritime Security: The SLINEX naval exercises have become one of the most visible manifestations of Indo-Sri Lanka cooperation in maritime security. Sri Lanka is a part of India's regional maritime security architecture with Sri Lankan coastal surveillance radars being integrated to the International Fusion Center – Indian Ocean Region (IFC-IOR) at Gurugram in India.

What is the strategic significance of Sri Lanka?

Strategic location: Sri Lanka is strategically located in the Indian Ocean. The East-West maritime route passing around the island state carries around two-thirds of the world's oil and half of the world's container transportation.

Maritime security: Also, Sri Lanka is home to ports that have the potential to become important maritime hubs in the Indian Ocean. The potential of Sri Lanka to ensure maritime security and trade and in securing the strategic Sea Lanes of Communication adds to its significance in the region.

Maintenance of stability, peace and security: In recent years, there has been a noticeable rise in Chinese influence within the country, particularly evident through China's Belt and Road Initiative. China has established terminals in both the Port of Colombo and the Port of Hambantota. Given the rivalry and problems between India and China and India's desire to maintain stability, peace and security in the region, Sri Lanka becomes even more important.

Is Sri Lankan economic crisis an opportunity for India?

Last year, Sri Lanka went through its gravest economic crisis since gaining independence in 1948. In this severe crisis,

India as a good neighbor, and following its '**neighbourhood first**' policy, had extended financial assistance to the tune of **USD 4 billion**. Also, India strongly supported Sri Lanka's debt restructuring plan at the International Monetary Fund.

This has generated a lot of **good will** and radically **improved India's bargaining power** with Sri Lanka. India's efforts have also resulted in some tangible outcomes.

For example, India signed a deal with Sri Lanka to develop Trincomalee oil tank farm. India has sought such a deal for decades. India's National Thermal Power Corporation is also going to develop a 100-megawatt power plant in Sampur, a strategic point at the Trincomalee's natural harbour. Also, Sri Lanka cancelled a Chinese company's licence to build a micro electricity grid close to India.

However, it would be **unrealistic to assume that Indian assistance alone would automatically bring Sri Lanka under Indian influence**.

Nevertheless, India must continue to provide as much assistance to Sri Lanka as possible to deal with the present economic crisis, because **prolonged instability in the country will have a spill-over effect on India** too.

What are the challenges in India Sri Lanka relations?

Fishing disputes: Despite reaching an agreement 47 years ago through the 1974 Indo-Lanka Maritime Boundary Agreement, India and Sri Lanka have not yet resolved their maritime dispute. Indian fishermen continue to cross the maritime border into Sri Lanka in the Palk Strait, resulting in encounters with the Sri Lankan Navy, leading to tensions and assaults.

Tamil issue: There is concern regarding Sri Lanka's lack of measurable progress in fulfilling its commitment to finding a political solution to the Tamil issue. The Tamil community in Sri Lanka has been demanding the implementation of the **13th Amendment** that provides for devolution of power to it.

Chinese influence in Sri Lanka: China has used its geoeconomics to achieve its geopolitical objectives in Sri Lanka. This has resulted in strategic land acquisitions, which could easily transform into a civil-military operation. China also enjoys significant domestic political influence amongst the political parties in Sri Lanka.

Conclusion

India's relationship with Sri Lanka is framed within India's "**Neighbourhood First**" policy and "**SAGAR**" framework. The India-Sri Lanka relationship is multi-dimensional and deeply rooted in historical ties. Recently, a transactional economic aspect has been introduced to the relationship, which is expected to reduce Colombo's reliance on Beijing. This development is also likely to positively influence India's security considerations in the Indian Ocean region.

Sources: [Indian Express](#), [The Hindu](#)

Resurgence of Inflation: Explained, pointwise

Introduction

India went through a significant inflationary phase last year. Prices of food, especially tomatoes and cereals, are rising again. Recent inflation figures have also raised concerns regarding the resurgence of high inflation.

What are the recent trends in inflation?

The recent Consumer Price Index (CPI) data shows a rise in inflation with June's CPI reaching a three-month high of 4.81 percent. But it is still below RBI's upper tolerance limit of 6 percent.

Food prices are leading this surge, especially in the food and beverages sector, which makes up almost 46% of the CPI's weight.

The food price inflation was broad-based with 10 of the 12 sub-groups witnessing year-on-year increases.

Specifically, cereals witnessed a 12.7 percent price gain, eggs rose by 7 percent, dairy by 8.56 percent, pulses by 10.5 percent, and spices by a sharp 19 percent.

Vegetable prices rose significantly in June, with tomatoes increasing by 64% from May.

What are the signs of resurgence of high inflation?

The year-on-year price rise happened in spite of a high base (June 2022 saw inflation at 7.01 percent) which is a clear sign of resurgence of high inflation.

Another sign is core inflation. It is calculated by excluding the more volatile components like food and fuel from CPI. It remained at 5.16 percent, barely moving from May's 5.17 percent.

What are the reasons for the recent inflationary trend?

Erratic weather conditions: While the late arrival of the monsoon led to a large rain deficit till mid-June, heavy rains since the last week of June have caused significant damage to crops, primarily in Punjab and Haryana.

Weight of food and beverages in the CPI basket: This weight currently is 45.9 percent, and food alone is 39 percent. This is outdated and based on the 2011 consumption survey. Also, as per **Engel's law**, with rising per capita income, people will spend less on food. Therefore, with the old weights, there is overestimation of CPI inflation.

Disease and Feed Costs: Milk production faced challenges from rising feed costs and lumpy skin disease.

Reduced Production: Tur inflation soared because of lower acreage and production. Weather conditions might further reduce pulse outputs in regions that depend on rainfall.

What are the government policies to control inflation?

Inflation is a complex phenomenon caused by several factors such as demand-pull factors, cost push factors and structural factors. Therefore, a mix of macro-economic policies are needed to manage the inflation in the economy.

Following are some policies governments use to deal with inflation:

Monetary Policy:

Limiting the money supply may help reduce inflation since the money supply and inflation are closely linked.

In 2016, Parliament amended the RBI Act, 1934 to change the monetary policy, and introduce an inflation targeting framework.

As per the new framework, the central government, in consultation with RBI sets: (i) an inflation target, and (ii) an upper and lower tolerance level for retail inflation. The target has been set at 4%, with an upper tolerance limit of 6% and a lower tolerance limit of 2%.

RBI adjusts its policy instruments, mainly the repo rate, to achieve this target.

Repo rate is the interest rate at which the RBI lends money to the banks. As such, it changes the interest rates in the whole economy.

Fiscal Policy:

The government can manage inflation through public expenditure and taxation.

The government can reduce inflation by raising the tax rates and thereby decreasing expenditure, demand, and inflationary pressures.

When inflation is high, the government reduces public expenditure. Decline in public expenditure affects private investment and results in decline of aggregate demand.

Other Measures:

Price controls: Under the Essential Commodity Act 1955, the government can declare a commodity as an essential commodity to ensure supplies to people at fair prices.

Export policy: The government can temporarily ban the export of certain items to improve their supply in the domestic market. The government also imposes Minimum Export Price (MIP) to discourage exports of commodities to ensure their availability in the domestic markets. Governments also allow duty-free imports of certain items to improve domestic supply.

Check over Speculation and Hoarding: The Prevention of Black Marketing and Maintenance of Supplies of Essential Commodities Act, 1980 allows for detention of persons engaged in activities like hoarding, creating artificial scarcities of essential commodities in the market and rigging up of the prices.

Ban on Futures Trading of Commodities: To reduce speculation – driven appreciation in prices, the government often bans futures trading of the commodities.

What are the recent government initiatives?

The government has recently banned the export of non-basmati white rice.

Earlier, the government banned the export of wheat and introduced stocking limits.

The government has directed two cooperatives — National Cooperative Consumers' Federation of India (NCCF) and National Agricultural Cooperative Marketing Federation of India (NAFED) — to sell tomatoes.

How effective are the policies to control inflation?

Monetary policy: Monetary policy is effective in controlling inflation when there is excess demand, and the economy is overheating (demand-pull inflation). Higher interest rates lower inflation because loans become costlier.

But in India's case it is the supply costs and bottlenecks that have created inflation (cost-push inflation). In such a scenario monetary policy is not very effective in taming inflation. In fact, a tighter monetary policy drags down GDP and pushes people out of employment, harming the real economy.

Fiscal policy: If government spending and taxation are used to enhance the productive capacity and efficiency of the economy, they can help mitigate cost-push inflation. Investments in

infrastructure, education, and technology can improve productivity and reduce inflationary pressures.

Reducing government expenditure during periods of high inflation can help to dampen demand pressures in the economy, as less money is pumped into circulation.

Export Bans and Stocking Limits: India banned wheat exports in May 2022 and imposed stocking limits on traders. An export ban was also placed on white rice. Policymakers are using older strategies from the 1960s, which might not be suitable for current market dynamics. For example, despite the wheat export ban and stocking limits, wheat inflation is at 12.37 percent.

But the ban on rice exports may bring relief to Indian consumers because a shortfall in production is expected. Due to extreme flooding in the north and relatively poor rainfall elsewhere, rice sowing has declined this year.

What alternative measures should be taken?

Adjust Import Duties: Import duties on items like wheat should be reduced as cheaper imports can help control domestic prices.

Release Excess Stocks: The government holds more than 40 million tonnes of rice, much above the buffer stock norms of 13.5 MT. This excess stock should be unloaded by Food Corporation of India in the open market at reasonable prices.

Update the CPI Basket Weights: The weight of food and beverages in the CPI basket should be adjusted to reflect current realities as the weights are based on the 2011 consumption survey.

Enhance Processing Capacity: About 10-15 percent of perishable items like tomatoes and onions should be processed. The availability of alternatives like tomato paste and onion powder will help to stabilize prices.

Conclusion

Fiscal policy and monetary policy must work in tandem and be well-coordinated because sometimes one policy alone might not be sufficient to manage inflation effectively. These two policy tools are the primary components of a country's macroeconomic policy framework, and their combined efforts can help achieve stable economic growth and price stability.

Sources: [The Hindu](#), [Indian Express](#)

[Kurukshehra July 2023 Summary] Dryland Farming: Explained, pointwise

Introduction

India's unique geographical location results in diverse climatic conditions, leading to distinct farming systems and cropping patterns in various agro-climatic zones across the country. One of these practices is dryland farming, which has gained importance due to global warming and climate change. Dryland farming has become a prominent approach to ensure sustainable food security, especially with a growing population and mounting pressure on natural resources.

What are the characteristics and challenges of dryland farming in India?

Dryland farming involves cultivating crops without or with very limited irrigation, relying primarily on natural rainfall.

Rainfall: These regions experience low, erratic and unevenly distributed rainfall, ranging from 375 mm to 1125 mm, making them less productive and economically fragile.

The distribution of rainfall during the crop period is often uneven. Crops may receive excessive rain when it is not needed and insufficient rain when they require it the most.

Late arrival of the monsoon delays crop sowing, resulting in poor yields. In contrast, if monsoon rains recede early, the crops face drought-like conditions during critical growth stages, leading to reduced crop yields.

Soils: Dryland areas typically have poor and degraded soils with low water retention capabilities and various nutrient deficiencies such as nitrogen and phosphorus deficiencies.

The weak soil structure and depleting groundwater tables make these areas more susceptible to drought and drought-like conditions.

Temperature: Huge variations in temperature affect crop growth and yields and deteriorate quality of produce in most cases.

Landholdings: Landholdings are generally small (less than two hectares), fragmented, and scattered, which makes farming less remunerative and difficult.

What is the difference between dry farming, dryland farming and rainfed farming?

Dry farming: Dry farming is practiced in areas where the annual rainfall is less than 750 mm and the crop growing season is less than 200 days. It is generally practiced in arid regions of the country.

Dryland farming: Cultivation receiving rainfall in the range of 750 mm to 1150 mm is known as 'dryland farming'. Crops in semi-arid regions of the country are included under this category.

Rainfed farming: Rainfed farming is practiced without irrigation in areas receiving rainfall in the range of around 1150 mm. Most of its cultivation area falls in the humid and sub-humid regions of the country.

In these regions, **irrigation facilities are absent, and even protective or life-saving irrigation is not feasible.**

What is the contribution of dryland Farming?

Major dry farming crops include **millets, oilseeds, pulses, maize, cereals, and cotton.**

Almost **80 per cent of Sorghum** (Jowar) and Maize, **90 per cent of Pearl millet** (Bajra), **75 per cent of oilseeds**, and approximately **95 per cent of pulses** are obtained from dryland agriculture.

Contributions to wheat and rice production are also important, because **33 per cent of wheat and 66 per cent of rice** are still rainfed.

Drylands also contribute more than **70 per cent cotton** to textile industries.

Despite struggling with issues of scanty resources, environmental stress, and low productivity, dryland agriculture is producing nearly **44 per cent of the total food grains** in the country.

What are the areas under dryland farming?

Out of the 141 million hectares of estimated net sown area in the country, close to 80 million hectares is under dryland farming. As per estimates, **nearly 40 per cent of the net sown area** in India will remain rainfed even after realizing the full potential of irrigation.

Dryland agriculture area in India includes the following:

9. Northwestern Rajasthan
10. The plateau region of central India
11. The alluvial plains of Ganga-Yamuna river basin
12. The central highlands of Gujarat, Maharashtra, and Madhya Pradesh
13. The rain shadow regions of Western Ghats in Maharashtra
14. The Deccan Plateau of Andhra Pradesh
15. The Tamil Nadu highlands

A recent report of the **National Rainfed Area Authority** (2020) identified and categorised 670 districts on an all-India basis as very high rainfed, high rainfed, medium rainfed and low rainfed.

It was found that 11 states have a high share of rainfed areas. These states are Andhra Pradesh, Bihar, Chhattisgarh, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, Tamil Nadu, and Uttar Pradesh.

What are the strategies for development of dryland farming?

Selecting an **appropriate cropping system** tailored to the area is a crucial strategy, which becomes more profitable with effective management of sowing time.

Employing **proper tillage, fertilizer management, weed control, and implementing plant protection measures** also play essential roles in boosting productivity.

The use of **drought-tolerant crop varieties** is another important technique, as these varieties can endure prolonged periods of drought more effectively than other types.

Soil condition can be improved by planting **cover crops** (planted to cover the soil, not for harvesting). They can reduce erosion, improve soil health, enhance water availability, and help control pests and diseases. Cover crops also increase resilience to drought conditions and erratic rainfall.

Mulching is a common dryland technique to conserve moisture in the soil by preventing evaporation.

What are the government initiatives for dryland farming?

In the 1950s, the Government realised the significance of dryland agriculture and decided to improve stability and productivity of drylands through **research and development (R&D) efforts**. Various R&D centres at different dryland locations started work for developing appropriate soil and water conservation practices.

In 1970, the Indian Council of Agricultural Research (ICAR) initiated the **All India Coordinated Research Project for Dryland Agriculture (AICRPDA)** in Hyderabad, establishing 23

collaborating centers across the nation. It marked the start of location specific adaptive research in dryland agriculture.

In 1985, ICAR established **Central Research Institute for Dryland Agriculture (CRIDA)** at Hyderabad to further strengthen basic and adaptive research. CRIDA has successfully developed a large number of technologies in rainwater management, watershed development, soil health management, cropping systems, etc.

The ICAR launched a flagship network project called the **National Innovations in Climate Resilient Agriculture (NICRA)**, primarily to develop and promote climate-resilient technologies in agriculture with a special focus on rainfed regions.

The NICRA project has developed several climate-resilient technologies which include climate resilient varieties of different crops, resilient intercropping systems, crop diversification with alternate crops, agro-forestry systems, in-situ moisture conservation, farm pond, integrated framing systems, etc.

The Government is also implementing a scheme on rainfed area development under the **National Mission for Sustainable Agriculture**. The scheme focuses on integrated farming systems for enhancing productivity and minimising risks associated with climatic variability.

Schemes such as **Per Drop More Crop**, **Soil Health Card** and **Paramparagat Krishi Vikas Yojana** are also contributing to the improvement of dryland agriculture.

What should be the future course of action?

There is a vast scope to **increase the productivity** of dryland agriculture from the current average of **1.2 tonnes per hectare to 2.0 tonnes per hectare**. This potential can be achieved by inclusion of new technologies, diversification of crops, adoption of drought-tolerant varieties, and implementation of moisture retention techniques.

CRIDA has developed '**The Vision 2050**', which outlines the future scenario. As per the vision, cutting edge technologies such as **remote sensing** and **GIS** applications should be exploited for natural resource characterisation and land-use planning.

Nanotechnology based products and processes should also be developed for application in dryland agriculture.

Location-specific research and its efficient delivery should be guiding principles to bring sustainability to the dryland agriculture system. The primary focus may be laid on rainwater harvesting and soil health management.

Integrated farming modules for different production environments must be attempted on a priority basis for the risk-proofing of small and marginal farmers.

Small farm mechanisation needs early attention and addressal due to an acute shortage of labour for agricultural operations.

To enhance productivity and profitability in dryland areas, the promotion of **solar power** and other renewable energy sources, along with the adoption of **precision agriculture**, is essential.

Conclusion

Despite numerous constraints, dryland farming can be successful by considering local climate and soil conditions, selecting appropriate crops, and utilizing suitable technologies. By adopting an integrated farming model, dryland farmers have the potential to cultivate multiple crops within a single season, incorporating horticultural or livestock elements for added benefits.

Forest (Conservation) Amendment Bill, 2023: Explained, pointwise

Introduction

Recently, the Lok Sabha passed the Forest (Conservation) Amendment Bill, 2023 after the Joint Committee on the Forest (JPC) cleared all proposed amendments. The Bill seeks to amend the Forest Conservation Act (FCA), 1980.

What is the need for the amendments?

Different interpretations: In the **Godavarman case (1996)**, the Supreme Court expanded the definition of forests to encompass not only lands officially recorded as forests in government records but also areas which look like forest in their dictionary meaning. However, this led to complications as many of these lands were already being utilized for non-forestry purposes like settlements, institutions, and roads. As a result, there arose different interpretations of how the provisions of the FCA applied to different categories of lands, including recorded forest lands, private forest lands, and plantations.

For example, approximately 30 resorts in Karnataka became a subject of dispute between the state's revenue and forest authorities due to conflicting views on whether the land they were utilizing was classified as forest land or not.

Delay in Approval Process: The existing Forest Conservation Act requires consent from numerous authorities at the state and national levels before engaging in any non-forest activity in an area designated as 'forest.' This approval process was very difficult and challenging. It took almost a year even for minor requests like building access paths on the designated forest land.

Creation of additional carbon sink: Due to apprehensions that plantations on the lands of individuals and organizations can attract the FCA, the afforestation and plantation of trees outside forests is not getting desired impetus. This is becoming a hindrance in enhancing green cover to fulfil the Nationally Determined Contribution targets of creating additional carbon sink of 2.5 to 3.0 billion tons of CO₂ equivalent.

Security Infrastructure: The strategic and security related projects of national importance need to be fast-tracked. This will ensure development of vital security infrastructures, especially along the international border areas such as Line of Actual Control (LAC), Line of Control (LoC), as also in the notified Left-Wing Extremism areas. Small establishments, habitations on the side of roads/railways also need to be facilitated by providing them access and connectivity to main arterial roads and other public utilities.

New challenges: Following the enactment of the FCA, several new challenges have arisen concerning ecological, social, and environmental developments. These challenges include mitigating the impact of climate change, meeting the national targets of achieving Net Zero

Emissions by 2070, and maintaining or enhancing the forest carbon stock. Consequently, it is imperative to incorporate these issues within the scope of the Act.

What are the key features of the Forest (Conservation) Amendment Bill?

Name: The Bill renames the parent legislation, the FCA, to Van (Sanrakshan Evam Samvardhan) Adhiniyam, which translates to Forest (Conservation and Augmentation) Act. The new name reflects a new focus on afforestation and reforestation activities.

Preamble: The bill inserts a Preamble in the FCA to express a commitment to achieving net zero emissions by 2070, creating a carbon sink, increasing forest cover, and improving the livelihoods of forest-dependent communities.

Read more: [What are the key provisions of the Forest \(Conservation\) Amendment Bill, 2023?](#)

What are the positive aspects of the Forest (Conservation) Amendment Bill?

Agro-forestry: The Bill encourages private forests and agro-forestry projects because these would not be considered forests in the traditional sense. These projects would be exempt from the provisions of the FCA. That would ensure that farmers or owners of these private forests can harvest their lands, for commercial or other uses, without the need for acquiring forest clearance. This could potentially result in a major growth in agro-forestry projects and a significant increase in forest cover, which will help India in achieving its international commitment (NDC) and 33 percent forest cover.

Elimination of ambiguities: Removal of uncertainties in the applicability of FCA will facilitate the decisions making process on the proposals involving non-forestry use of forest land by the authorities.

Better forest management: The inclusion of additional activities such as forestry activities in the Bill, such as creating infrastructure for frontline forest staff, will facilitate a swift response to natural hazards in forested areas. Currently, the lack of enabling provisions in the FCA makes it challenging to establish essential infrastructure in forest regions. This impacts various forestry operations, regeneration efforts, monitoring, supervision, and forest fire prevention. By introducing these provisions, the bill seeks to improve forest management and conservation.

What are the concerns with the Forest (Conservation) Amendment Bill?

Restricting Supreme Court's judgement: The Bill will impose significant limitations on the application of the landmark Godavarman judgment of 1996, which broadened the scope of the 1980 FCA. The proposed amendment now narrows the Act's coverage to only legally notified forests and forests recorded in government records on or after October 25, 1980. This change could potentially impact approximately 28% of India's forest cover, covering nearly 2,00,000 square kilometers. These forests include forests of exceptional ecological value, including the Unclassed Forests in Nagaland, which have not been officially recorded or designated as forests until now.

States may now be free to allow the destruction of Unclassed forests for construction and development. Consequently, this amendment may have implications for ecologically significant areas, such as the large portions of the Aravalli Hills in the Delhi National Capital Region.

Exclusion of fragile ecosystems: By exempting the requirement for forest clearances for security-related infrastructure within 100 km of international borders, the Bill excludes some of India's most delicate ecosystems. These include globally recognized biodiversity hotspots such as the forests of northeastern India and high-altitude Himalayan forests and meadows.

Exemptions: The Bill includes exemptions for construction projects like zoos, safari parks, and eco-tourism facilities. However, these artificially created green areas differ significantly from natural ecosystems, which offer various ecosystem services.

Moreover, the Bill grants the Union government unrestricted powers to specify 'any desired use' beyond the original or amended FCA's specified purposes. This raises concerns about potential exploitation of forest resources without adequate environmental scrutiny.

Disenfranchising forest people: The Bill does not mention the Scheduled Tribes and Other Traditional Forest-dwellers (Recognition of Forest Rights) Act, 2006. Consequently, the exclusion of certain forest areas and the simplified diversion process might lead to the removal of the requirement to consult forest people's institutions (gram sabhas).

If India is to meet its net zero carbon commitments and increase forest cover, it would require the participation of forest people. For example, in Nepal, the handing over of forests to local community forest user groups helped the country increase its forest cover from 26% to 45% over just three decades.

What should be the way forward?

Complete ground surveys: Rather than restricting the scope of the Forest Conservation Act, there should be a concerted effort to prioritize the completion of the demarcation process for unrecorded forests. This approach would ensure that these forests are properly recognized and safeguarded under the existing legislation.

Balance development and conservation: There should be a careful balance between development projects and forest conservation. Compensatory afforestation should be carried out on non-forest land or degraded forest land, rather than promoting plantations over natural forests.

Indigenous and forest community rights: The rights of indigenous and forest communities should be respected, and their consent sought when it comes to the diversion of forest land. Their livelihoods and dependence on forests should be considered in decision-making processes.

Sources: [The Hindu](#), Indian Express ([Article 1](#) and [Article 2](#)), [PIB](#)

Circular Economy in India: Explained, pointwise

Introduction

Recently, under India's G 20 presidency, the Resource Efficiency and Circular Economy Industry Coalition (RECEIC) was launched. It is a first-of-its-kind initiative aimed at promoting resource efficiency and circular economy practices with participation from 39 global companies. Resource efficiency and circular economy are powerful strategies to minimise dependence on natural resources, reduce waste and encourage sustainable design practices. Recognising the need to switch from the 'take-make-dispose' (linear economy) to 'reduce-reuse-recycle' (circular economy)

model, India has prioritised 'Resource Efficiency and Circular Economy' as one of the three core themes for deliberations in the G-20 forum. In this context, it is important to understand India's current position, challenges in adopting circular economy and steps taken by the government to achieve circular economy.

Read more: [Circular Economy: Meaning, Benefits and Opportunities](#)

What is India's current position in terms of circular economy?

India's current economic model is largely linear, where resources are extracted, processed, and transformed into products that are sold to consumers.

From 1970 to 2015, India witnessed a six-fold increase in its annual material consumption, from 1.18 billion tonnes to 7 billion tonnes. This figure is expected to double to 14.2 billion tonnes by 2030. This material consumption is supported by a high speed of resource extraction. India's resource extraction is 1,580 tonnes/acre, which is 251% higher than the world average of 450 tonnes/acre.

Only about 20 per cent goods are recycled in India and after use, the products are discarded, leading to a significant amount of waste generation. According to the Central Pollution Control Board (CPCB), India generates over 62 million tonnes of waste every year, and this is expected to increase to 165 million tonnes by 2030. Most of this waste is disposed of in landfills or dumped in open spaces, leading to environmental degradation and health hazards.

What are the challenges in India in achieving the vision of a circular economy?

Lack of awareness and understanding: There is a lack of awareness and understanding among businesses, policymakers, and consumers about the benefits of circular economy and the need to transition towards it.

Limited infrastructure: India has limited infrastructure for waste management and recycling, which makes it difficult to implement circular economy practices.

Inefficient waste collection and segregation: In many parts of India, waste collection and segregation are inefficient, which hinders the recycling process and leads to the disposal of valuable resources.

Limited availability of recycled materials: There is a limited availability of recycled materials in India, which makes it difficult for businesses to incorporate recycled materials into their production processes.

Lack of incentives: In a circular economy, businesses need to redesign their products, services, and business models to use resources more efficiently, reduce waste, and minimize environmental impact. However, this transition can be costly and time-consuming, and without incentives, businesses may prioritize short-term profits over long-term sustainability goals. This can hinder the adoption of circular practices. There is a lack of adequate incentives for businesses to adopt circular economy practices.

Limited research and development: There is limited research and development in the field of circular economy, which hinders the development of new technologies and solutions for recycling and waste management.

Lack of multi-stakeholder level understanding: There is an absence of a multi-stakeholder level understanding of the circular economy. A circular economy requires a collective effort from all stakeholders to create systemic change in the way goods and services are designed, produced, consumed, and disposed. The absence of a multi-stakeholder approach can limit knowledge sharing and exchange of best practices.

What are the steps taken by the government for India's transition to a circular economy?

National Resource Efficiency Policy (NREP): The NREP was launched in 2019 with the objective of promoting sustainable production and consumption patterns, enhancing resource efficiency, and reducing the environmental impact of economic activities. The policy includes measures to encourage the adoption of circular business models, such as product-as-a-service, leasing, and sharing, and promotes the use of recycled materials.

Extended Producer Responsibility (EPR): EPR is a regulatory framework that makes manufacturers and producers responsible for the post-consumer waste generated by their products. The EPR framework encourages producers to adopt sustainable product design practices, increase the use of recycled materials, and support waste management and recycling initiatives. The government has formulated the **Battery Waste Management Rules 2022**, **Plastic Waste Management Rules** as amended in 2022, **e-Waste Management Rules 2022** in this context.

Swachh Bharat Mission (SBM): The Swachh Bharat Mission was launched in 2014 with the objective of promoting cleanliness, hygiene, and waste management. The mission includes initiatives to promote waste segregation, recycling, and composting, and aims to make India a “zero-waste” country. A reduction in waste generation is central to the goal of a circular economy.

Atal Innovation Mission: The Atal Innovation Mission was launched in 2016 to promote innovation and entrepreneurship in India. The mission includes initiatives to support the development of circular business models and encourage the adoption of sustainable technologies.

Bio-Economy and Biofuels: The **Pradhan Mantri JI-VAN Yojana** provides financial support to integrated bio-ethanol projects to set up second generation (2G) ethanol projects. The government has also made it mandatory for coal-burning thermal power plants to use a 5% blend of biomass pellets along with coal. The **Galvanizing Organic Bio-Agro Resources (GOBAR) Dhan scheme** was launched to convert cattle dung and other organic waste into compost, biogas, and biofuels to promote sustainable agriculture and reduce pollution. The **Sustainable Alternative Towards Affordable Transportation (SATAT) Scheme** was launched in 2018 to promote the use of Compressed BioGas (CBG) as an alternative green transportation fuel.

Financial Incentives: The government has implemented various financial incentives to encourage the adoption of circular business models and promote sustainable consumption patterns. These incentives include tax benefits, subsidies, and low interest loans to the recycling industry.

What should be done to achieve the vision of a circular economy?

Develop a comprehensive circular economy policy: India needs to create a policy framework that outlines the goals, strategies, and mechanisms to transition towards a circular economy. This policy should be based on extensive research and stakeholder consultations to ensure that it is effective and feasible.

Promote waste reduction and management: India needs to focus on reducing waste generation and managing waste more efficiently. This could include measures such as promoting recycling, composting, and waste-to-energy conversion.

Encourage sustainable production and consumption: India should encourage the production and consumption of sustainable products and services that are designed to be reused, repaired, or recycled. This could be achieved through measures such as tax incentives, product labeling, and awareness campaigns.

Develop circular business models: India should encourage businesses to adopt circular business models, such as product-as-a-service, leasing, and sharing. This could help reduce resource consumption and waste generation, while also creating new business opportunities.

Invest in innovation and technology: India should invest in innovation and technology to develop new circular solutions, such as advanced recycling technologies, sustainable materials, and renewable energy sources.

Collaborate with stakeholders: India should collaborate with various stakeholders, including government agencies, businesses, NGOs, and consumers, to create a shared vision and work towards a common goal of circular economy.

Conclusion

The transition to a circular economy is expected to provide numerous benefits to India, ranging from environmental conservation to economic growth and job creation. The circular economy's emphasis on reducing waste generation, promoting local production and resource optimization, and reducing greenhouse gas emissions aligns with India's commitments to sustainable development and climate change mitigation. Therefore, India must take proactive steps to accelerate the transition to a circular economy, including investing in infrastructure, encouraging innovation and technology development, and building public awareness and support for a circular economy.

Sources: [The Hindu](#), EAC-PM ([Document 1](#) and [Document 2](#))

Tiger conservation in India: Explained, pointwise

Introduction

Recently, the government has released detailed report of All India Tiger Estimation -2022 and final report of 5th cycle of Management Effectiveness Evaluation of Tiger Reserves on the occasion of International Tiger Day (29th July). These reports highlight the success of tiger conservation efforts in India.

What are the key findings of All India Tiger Estimation -2022?

The upper limit of the tiger population is estimated to be **3925** and the average number is 3682 tigers, reflecting an **annual growth rate of 6.1% per annum**.

India currently harbors almost **75% of the world's wild tiger population**.

Central India and the Shivalik Hills and Gangetic Plains witnessed a notable increase in tiger population, particularly in the states of Madhya Pradesh, Uttarakhand, and Maharashtra.

However, certain regions, such as the **Western Ghats, experienced localized declines.**

The largest tiger population of 785 is in Madhya Pradesh, followed by Karnataka (563) & Uttarakhand (560), and Maharashtra (444).

The tiger abundance within the Tiger Reserve is highest in Corbett (260), followed by Bandipur (150), Nagarhole (141), Bandhavgarh (135), Dudhwa (135).

Approximately **35% of the tiger reserves urgently require enhanced protection measures**, habitat restoration, ungulate augmentation, and subsequent tiger reintroduction.

Final Report of 5th cycle of Management Effectiveness Evaluation of Tiger Reserves About Management Effectiveness Evaluation

Management Effectiveness Evaluation (MEE) is adopted from the framework of the **International Union for Conservation of Nature and Natural Resources (IUCN) World Commission on Protected Areas.**

MEE is an important tool to assist and improve the management of Tiger Reserves and their associated landscape connectivity.

51 out of 53 Tiger Reserves have been independently evaluated through the MEE process in the fifth cycle in 2022.

For the assessment of the MEE Framework, **33 criteria** have been developed and a percentage rating was calculated for each Tiger Reserve from the scores of all 33 criteria/indicators.

Key findings

The results indicate an overall **mean score of 78.01% for 51 Tiger Reserves.**

A total of **12 Tiger Reserves have achieved 'Excellent' category** (rating greater than or equal to 90 percent).

21 Tiger Reserves were in 'Very Good' category (75-89 percent rating).

13 Tiger Reserves achieved 'Good' category (60-74 percent rating).

5 Tiger Reserves were in 'Fair' category (50-59 percent rating).

What is Project Tiger and National Tiger Conservation Authority (NTCA)?

Project Tiger was **launched in 1973** to promote conservation of the tiger. It came at a time when the population of tigers in India was rapidly dwindling, due to unfettered hunting and habitat loss.

Project Tiger is an ongoing **Centrally Sponsored Scheme** of the Ministry of Environment, Forests and Climate Change providing central assistance to the tiger States for tiger conservation in designated tiger reserves.

The National Tiger Conservation Authority (NTCA) is a **statutory body** of the Ministry, with an overarching supervisory / coordination role, performing functions as provided in the Wildlife (Protection) Act, 1972.

Read more: [What are the government initiatives focused on improving the tiger population in India?](#)

What are the achievements of Project Tiger?

Population increase: In 1970s, the tiger population was estimated to be around 1800. Project Tiger started in 1973 with 268 tigers. Now, the tiger population is estimated to be 3925.

Expansion of Tiger reserves: The initial number of 9 tiger reserves across 18,278 sq km of land in 1973 has now expanded to 53 tiger reserves cumulatively protecting an area of 75,796.83 sq km, approximately 2.3 per cent of the country's geographical area.

Protecting other species: The ban on hunting to protect tigers resulted in the population of numerous other animals experiencing an increase.

Why tigers should be conserved?

Preserving the ecosystem: The tiger plays a pivotal role in the health and diversity of an ecosystem. It is a top predator who keeps the population of wild ungulates in check, thereby maintaining the balance between herbivores and the vegetation upon which they feed. Therefore, the presence of tigers in the forest is an indicator of the well-being of the ecosystem.

Protecting water sources: Tiger habitats overlap with important watersheds. Protecting these tiger forests is the most cost-effective way to prevent droughts, reduce flooding, and limit the impacts of climate change. For example, the 51st Tiger Reserve, Srivilliputhur Megamalai, in southern India will safeguard more than 1,000 sq km of key river habitat.

Protecting tigers also protects other species: Tiger-protected areas save other species as well. For example, Manas Tiger Reserve in Assam also support the pygmy hog and the Bengal florican. Without tigers, these and many more species would not be as well protected.

Read more: [What is the significance of conserving the tiger population?](#)

What are the threats to tiger conservation?

Climate change-related impacts on habitats and the loss of the quality of forests over time is one of the challenges in tiger conservation. Out of the approximately 400,000 square kilometers of forests in tiger states, only one-third are in relatively healthier condition.

Illegal wildlife trade: Even though poaching is illegal, the demand for tiger products remains high, and poachers continue to kill tigers for profit.

Habitat and loss of prey species: Large-scale habitat Degradation and dwindling prey populations are the major long-term threats to the existence of tigers in the country. Although extensive habitat is available in some landscapes, agriculture, clearing of forests for development – especially road and rail networks, hydel projects are forcing tigers into small and scattered islands of remaining habitat. Tigers need large territories. And along with habitat, tigers have also suffered a severe loss of natural prey populations in key habitats.

Region wise threats

Wildlife habitats in the **Central Indian region** face various threats, including habitat encroachment, illegal hunting, conflicts with humans, unregulated cattle grazing, excessive harvesting of non-timber forest products, forest fires, mining, and expanding infrastructure.

North Eastern Hills and Brahmaputra region is currently facing several threats such as habitat loss, poaching, and human-wildlife conflict.

In the **Sundarbans**, the tiger population and landscape are both threatened by biotic interference in the form of forest exploration, fishing, palm and timber extraction, and the expansion of waterways.

What should be the way ahead for tiger conservation?

A **landscape approach** is required to protect the entire landscape. Landscape planning emphasises on corridors which allow free movement for dispersing tigers, equal protection to tigers living outside tiger reserves, habitat improvement outside tiger reserves to improve availability of food, water and cover for tiger and its prey base.

Illegal trade of tiger organs needs a **coordination** among forests, customs, postal and police departments and paramilitary forces like ITBP, SSB and BSF to curb internal and border transaction of tiger organs.

Special engagements with CITES, IUCN and Traffic are needed to monitor factors responsible for demand of tiger organs, identify hot spots and nexus operating outside Indian borders. Strong surveillance, intelligence gathering and coordination among national and international agencies would ensure a safe journey for tiger conservation in India.

Estimation of carrying capacity of tiger reserves should be priority for coming years to assess an optimum level of tiger population a reserve can sustain. Translocation of excess animals can be carried out to tiger deficit reserves to further strengthen tiger population. Sariska Tiger Reserve in Rajasthan, Panna Tiger Reserve in Madhya Pradesh and Rajaji Tiger reserve in Uttarakhand are doing well with their translocated population of tiger.

Conclusion

The increase in the tiger population is a positive sign, but we must not become complacent and there is a need to continue our efforts to ensure the survival of this magnificent animal and safeguard our forested ecosystems in their entirety. Tigers are not just a part of India's wildlife heritage but also a symbol of the country's ecological richness and economic well-being.

To ensure the long-term survival of tigers in India, a multi-faceted approach is needed, including protecting and expanding tiger habitats, preserving population connectivity, minimizing human-tiger conflicts, and combating threats like habitat loss, poaching, and illegal trade. It's important to restore habitats, increase ungulate populations, and plan reintroduction of tigers in low density areas to tackle conflict issues. The involvement of various stakeholders, such as governments, NGOs, local communities, and businesses, is crucial.

Sources: PIB ([Press release 1](#) and [Press release 2](#)), [Status of Tigers 2022 report](#)