ForumIAS

7 PM COMPILATION

1st to 15th February, 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**
- **Written in lucid language and point format**
- **Wide use of charts, diagrams and info graphics**
- **Best-in class coverage, critically acclaimed by aspirants**
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- **Best cost-benefit ratio according to successful aspirants**

India-Egypt Relationship – Explained, pointwise
Topic:- International Relations
Sub topic:- Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

Economic Survey 2022-23: Key Highlights – Explained, pointwise
Topic:- Economic development
Sub topic:- Government Budgeting

Union Budget 2023-24: Key Highlights – Explained, pointwise
Topic:- Economic development
Sub topic:- Government Budgeting

Working of the MGNREGS: Challenges and Solutions – Explained, pointwise
Topic:- Social Justice
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MSMEs: Significance, Challenges and Solutions – Explained, pointwise
Topic:- Economic development
Sub topic:- changes in industrial policy and their effects on industrial growth

Energy Transition: Challenges and Solutions – Explained, pointwise
Topic:- Economic development
Sub topic:- Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

Hydroelectric Projects in India: Status, Benefits and Concerns – Explained, pointwise
Topic:- Economic development
Sub topic:- Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

Microfinance: Status, Benefits, Challenges and Solutions – Explained, pointwise
Topic:- Economic development
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Disinvestment in India: Trends and Challenges – Explained, pointwise
Topic:- Economic development
Sub topic:- Effects of liberalization on the economy

Gender Budgeting: Status, Benefits and Challenges – Explained, pointwise
Topic:- Economic development
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Biogas: Advantages and Challenges – Explained, pointwise
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Domestic Workers in India: Status and Issues – Explained, pointwise
Topic:- Economic development
Sub topic:- Employment

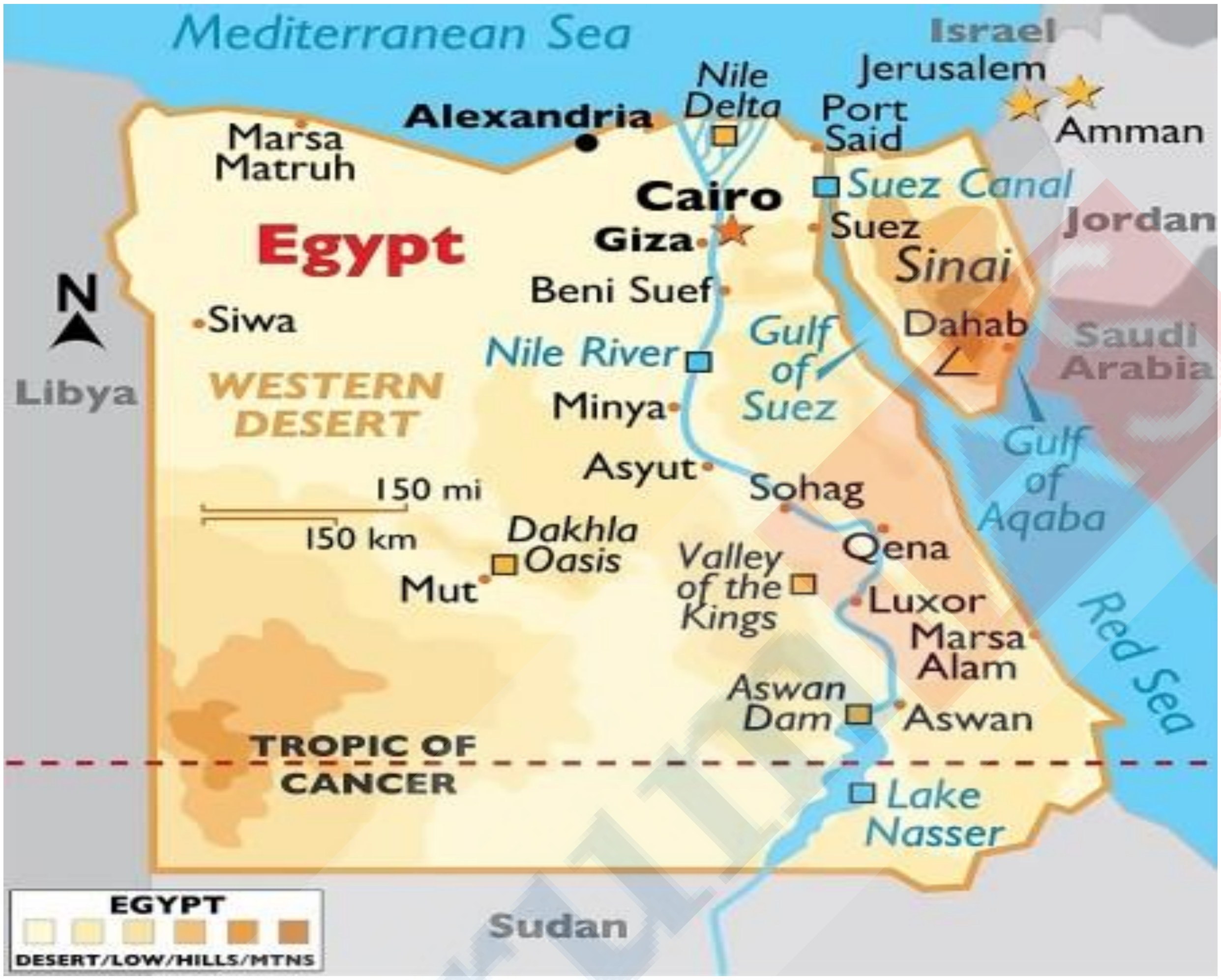
India-Egypt Relationship – Explained, pointwise

Introduction

The President of Egypt, Abdel Fattah El-Sisi was the Chief Guest at India's 74th Republic Day celebrations this year. In his meeting with the Prime Minister of India, the two nations agreed to elevate the India-Egypt Relationship to 'strategic partnership'. The strategic partnership will have broadly four elements: political, defence, and security; economic engagement; scientific and academic collaboration; cultural and people-to-people contacts. Egypt's presence at the Republic Day celebrations symbolizes the importance India accords to this relationship. The Government has pushed to enhance India's bilateral relationships with the Middle-East nations with a renewed vigour over the last decade, indicating strategic importance of the region to India's interests. Outreach to Egypt is a part of this approach.

What is the significance of Egypt to India?

Egypt's Strategic Location: The Suez Canal is a major transportation link in marine trade, handling about 12% of all international trade. It serves as a gateway to both Europe and Africa. India's business community can profit from Egypt's advantageous location as a hub for production and re-export to numerous nations connected by his nation's free trade agreements, particularly in the Arab world and Africa.



***Source:* [WorldAtlas.com]**

Energy Resources: India is a significant importer of Egyptian crude oil and natural gas. Petroleum Oil (46.2%) and Petroleum Gas (11.1%) were India's top imported items from Egypt in fiscal 2020-21. Egypt can be a reliable partner in fulfilling India's energy needs.

Egypt's Influence in the Arab World: The League of Arab States (Arab League) is headquartered in Cairo, the capital of Egypt, demonstrating its influential position in the Arab world. Arab League includes countries like Saudi Arabia, UAE, Oman, Bahrain, Iraq, Kuwait etc. among other, all of which have strategic importance. Furthermore, Egypt has productive diplomatic ties with the West. India views Egypt's diplomatic capital as extremely important. India can anticipate Egypt, as a responsible Arab power, providing the necessary assistance to it in contentious situations.

Egypt's Influence among the Islamic Nations: India views Egypt as a moderate Islamic voice among Muslim-majority countries, as well as a 'friend' within the Organisation of Islamic Cooperation (OIC). OIC is the 57-country grouping of Islamic nations. Pakistan, being a member of the OIC, uses its meetings as a platform to spread negative propaganda against India.

Shared Concerns: Both India and Egypt view the spread of violence, terrorism, and extremist ideology as a serious threat to global peace.

How has the India-Egypt Relationship evolved?

India and Egypt are home to world's oldest civilizations. They have had a long and fruitful history of cultural exchange e.g., **Ashoka's edicts** from before the Common Era make mention of his interactions with Egypt during the reign of Ptolemy II. In the Pre-Independence era, Mahatma Gandhi and Saad Zaghloul shared **common goals on the independence** of their countries. (*Saad Zaghloul was an Egyptian revolutionary and statesman. He led a civil disobedience campaign with the goal of achieving independence for Egypt from British rule. He played a key role in the Egyptian Revolution of 1919, as well as played a role in prompting the British Unilateral Declaration of Egyptian Independence in 1922)*. Prime Minister Jawaharlal Nehru had an exceptionally close friendship with President Gamal Abdel Nasser of Egypt, leading to a **Friendship Treaty** between the two countries in 1955.

India **established its relationship with Egypt immediately after Independence** with the joint announcement of establishment of diplomatic relations at Ambassadorial level on 18 August, 1947.

In 1961, Prime Minister Nehru and President Nasser, along with Yugoslavia's President Josip Broz Tito, Indonesia's President Sukrano and Ghana's President Kwame Nkrumah, **established the Non-Aligned Movement (NAM)**. Between 1980 and 2010, there have been four Prime Ministerial visits from India to Egypt in 1985, 1995, 1997 and 2009. From Egypt, President Hosni Mubarak visited India in 1982, in 1983 (NAM Summit), and in 2008. High level exchanges with Egypt have continued after the 2011 Egyptian Revolution. President Mohamed Morsi visited India in March 2013. The incumbent President Sisi came to power in 2014 and had visited India earlier in 2016.

Year 2022-23 marks 75th anniversary of modern diplomatic relationship between India and Egypt. Keeping in mind the strategic importance of India-Egypt Relationship, **Egypt has also been invited as a 'Guest Country' during India's Presidency of G-20 in 2022-23**.

What are the areas of cooperation in India-Egypt Relationship?

Trade and Investments: The **India-Egypt Bilateral Trade Agreement** has been in operation since March 1978 and is based on the Most Favoured Nation clause. Bilateral trade has expanded rapidly in FY2021-22, amounting toUS$ 7.26 billion registering a 75% increase compared to FY 2020-21. India's exports to Egypt during this period amounted to US$ 3.74 billion. Egypt's exports to India have touched US$ 3.52 billion. According to the Egyptian Central Agency for Public Mobilization and Statistics (CAPMAS), India was the 6th most important trading partner for Egypt in FY2021-22. India imports Mineral Oil/Petroleum, Fertilizers, Inorganic Chemicals and Cotton.

At present, more than **50 Indian companies have investments in Egypt** totalling more than **US$ 3.15 billion**. There are many potential projects to establish overseas investments like the Metro projects in Cairo and Alexandria, the Suez Canal economic zone, the second Suez Canal channel, and a new administrative capital in Cairo's suburbs among others. The Egyptian Government is considering allocating a special area of land in the Suez Canal Economic Zone (SCEZ) for Indian industries.

Russia-Ukraine conflict had threatened Egypt with a **shortage for wheat**, 80% of which is imported from Russia and Ukraine. In April 2022, Egypt announced inclusion of India in the list of accredited wheat suppliers to Egypt and ended a long **Non-Tariff Barrier**. However, a ban on wheat exports from India limited the trade, an initial shipment of 61,500 metric tons of wheat was cleared by India for Egypt in May 2022.

Bilateral mechanisms are in place to facilitate trade and economic relations between India and Egypt. The Indian Mission to Egypt regularly holds meetings at various fora for commercial collaboration.

Technical and Scientific Cooperation: The Government has been undertaking several projects related to technical and scientific cooperation like the **Pan Africa e-Network Project**, **Pan Africa Tele-medicine and Tele-education** project (Alexandria University), **Solar electrification** project(Agaween village) and Vocational Training Centre for **Textile Technology** (Shoubra, Cairo), **IT Centre** in Al Azhar University, CEIT, etc. ICAR and the Agricultural Research Center of Egypt are working in the field of **agricultural research**. 'Science & Technology' cooperation is implemented through biennial Executive Programmes and Scientific Cooperation Programme between CSIR (India) and NRC (Egypt).

Space cooperation is an emerging vertical of cooperation in India-Egypt Relationship. Joint Working Group meetings and discussions between **ISRO and NARSS** (National Authority for Remote Sensing and Space Sciences) have been held, since 2008. Egypt has establish EgSA (Egyptian Space Agency) in 2019 and both sides are exploring possibilities for collaboration.

Defence Relations: Egypt and India enjoy cordial defence relationship. There was close cooperation between the Air Forces, with **joint development of a fighter aircraft in 1960s**. IAF pilots also trained Egyptian pilots from 1960s until 1984. Since 2015, there have been several high-level exchange of visits by defense delegations. India and Egypt undertake multiple bilateral exercises for all three services on a regular basis.

Cultural Relationship: The **Maulana Azad Centre for Indian Culture** (MACIC) was set up in Cairo in 1992 to **promote cultural cooperation** between the two countries, through the implementation of the **Cultural Exchange Programme** (CEP). The Centre, in addition to popularizing Indian culture through Hindi, Urdu and Yoga classes and the screening of movies, also organizes cultural festivals. The **'India by the Nile' (IBN) annual cultural festival has emerged as the largest foreign festival in Egypt**. The strong ties between India and Egypt are evident from the affection towards India amongst the population. Three streets in Cairo are named after Indian leaders namely, Mahatma Gandhi, Pandit Nehru and Dr. Zakir Hussein.

At present, the Indian community in Egypt numbers at ~3200, most of whom are concentrated in Cairo. A majority of the Indians are either employed with Indian companies or are professionals with various MNCs. About 400 Indian students are studying in Egypt, mainly in Al Azhar University with around 275 students, and the rest in Ain Shams Medical University and Cairo University.

What are the challenges in India-Egypt Relationship?

First, Egypt is being seen as **getting close to China**. The Egyptian President has **visited China seven times in the past eight years**, including for the Beijing 2022 Winter Olympics. China-Egypt trade is more than double of India-Egypt bilateral trade. Chinese investments outnumber India's investments. Chinese influence over Egypt is not a good development from Indian perspective.

Second, Egypt is facing **domestic economic instability**. The Government is battling high inflation of 21%, which has resulted in historically high prices of commodities and daily-use items. Forex reserves are also in bad shape. Prolonged economic instability may lead to mass discontent and movement similar to 2011 revolution. A new regime (like that came to power in 2013) may not be in India's strategic interests.

What can be done to strengthen India-Egypt Relationship?

First, India and Egypt had lead the way in establishing NAM in the 1950s. Amidst geopolitical uncertainties of present times, India and Egypt should collaborate to **strengthen the South-South Cooperation** and call for a rules-based global order. India's invitation to Egypt is a welcome step in this regard. Both countries can act as voice of Global South. India PM had remarked in 2015 that India and Egypt should work together to **reform the UN Security Council**.

Second, India should scale-up its investments in Egypt. Egypt is a gateway to both Arab World and Africa. Closer economic ties with Egypt can pave way for greater investments and **cooperation with African nations**.

Third, India should look to **expand the scope of defense relationship** from bilateral exercises to joint development/manufacturing projects. Egypt can be a potential destination for **India's defense exports**.

Fourth, India and Egypt should enhance cooperation to counter terrorism and radicalism.

Conclusion

Egypt holds strategic importance for India. Both nations have shared a strong relationship since ancient times. India and Egypt were the leading countries for the NAM. However, the India-Egypt relationship had witnessed a phase of inactivity and passiveness after the 1990s. There is need to renew the relationship with a new vigour. India and Egypt should collaborate to strengthen the voice of Global South at the global level and push for a rules-based global order in a multipolar world.

Syllabus: GS II, India and its neighbourhood relations.

Source: **Indian Express**, **Indian Express**, **The Hindu**, **MEA**, **MEA**

Economic Survey 2022-23: Key Highlights – Explained, pointwise

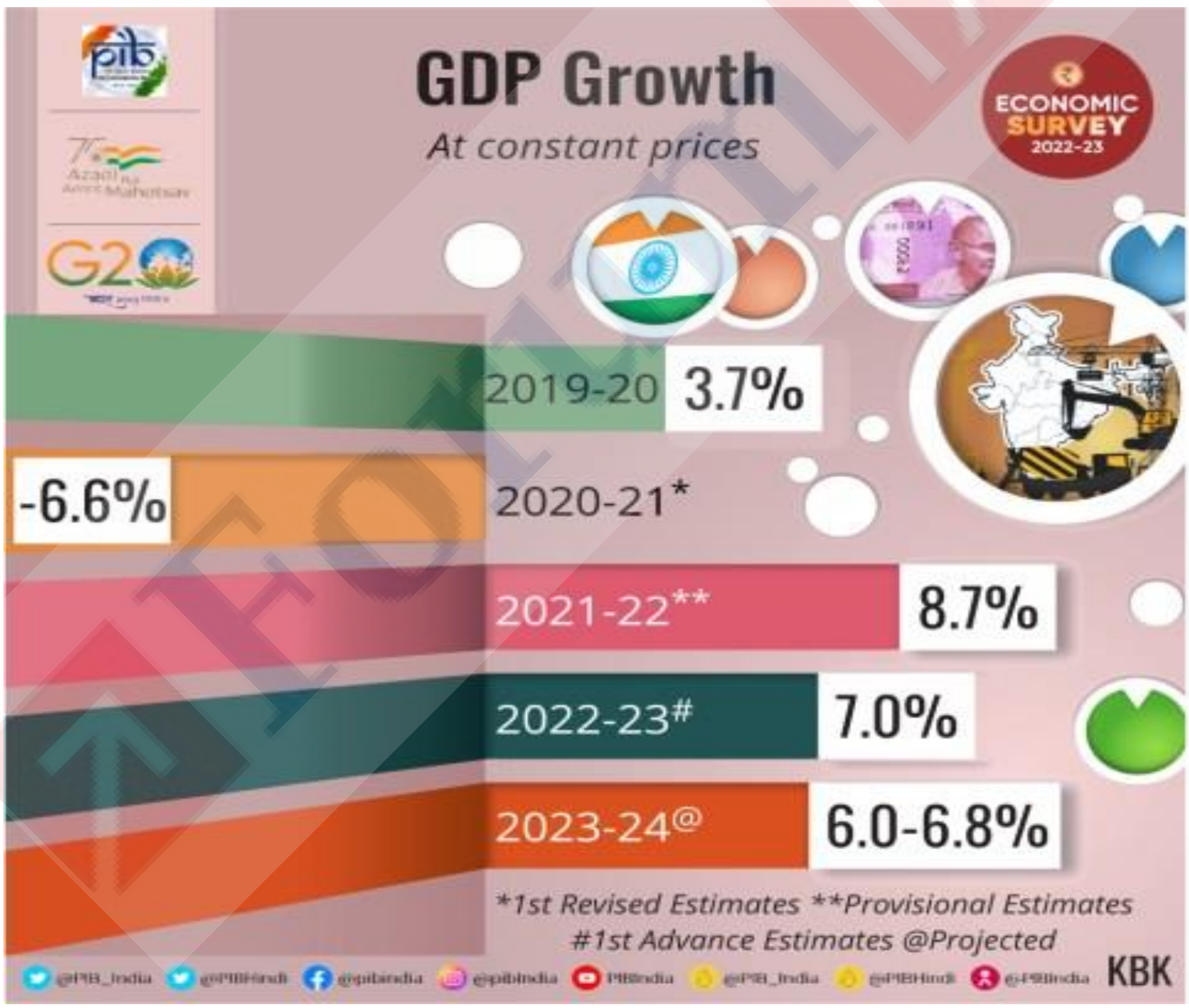
Introduction

The Economic Survey 2022-23 was tabled in the Parliament by the Union Finance Minister on January 31, 2023. The document has been prepared by the Economic Division of the Department of Economic Affairs (DEA). The Survey provides a detailed report of the national economy for the year along with forecasts. It touches upon everything from agriculture to unemployment to infrastructure. The comments, recommendation or policy solutions contained in the Survey are **not binding on the Government**. The document projects a baseline GDP growth of 6.5% in real terms in FY2023-24. The projection is broadly comparable to the estimates provided by multilateral agencies such as the World Bank, the IMF, the ADB etc. Growth is expected to be brisk in FY2023-24 driven by increased credit (loan) disbursal by banks and pick-up in investments. Further support to economic growth will come from the expansion of public digital platforms and path-breaking measures such as **PM *GatiShakti***, the **National Logistics Policy**, and the **Production-Linked Incentive** schemes to boost manufacturing output.

Key Highlights of the Economic Survey 2022-23

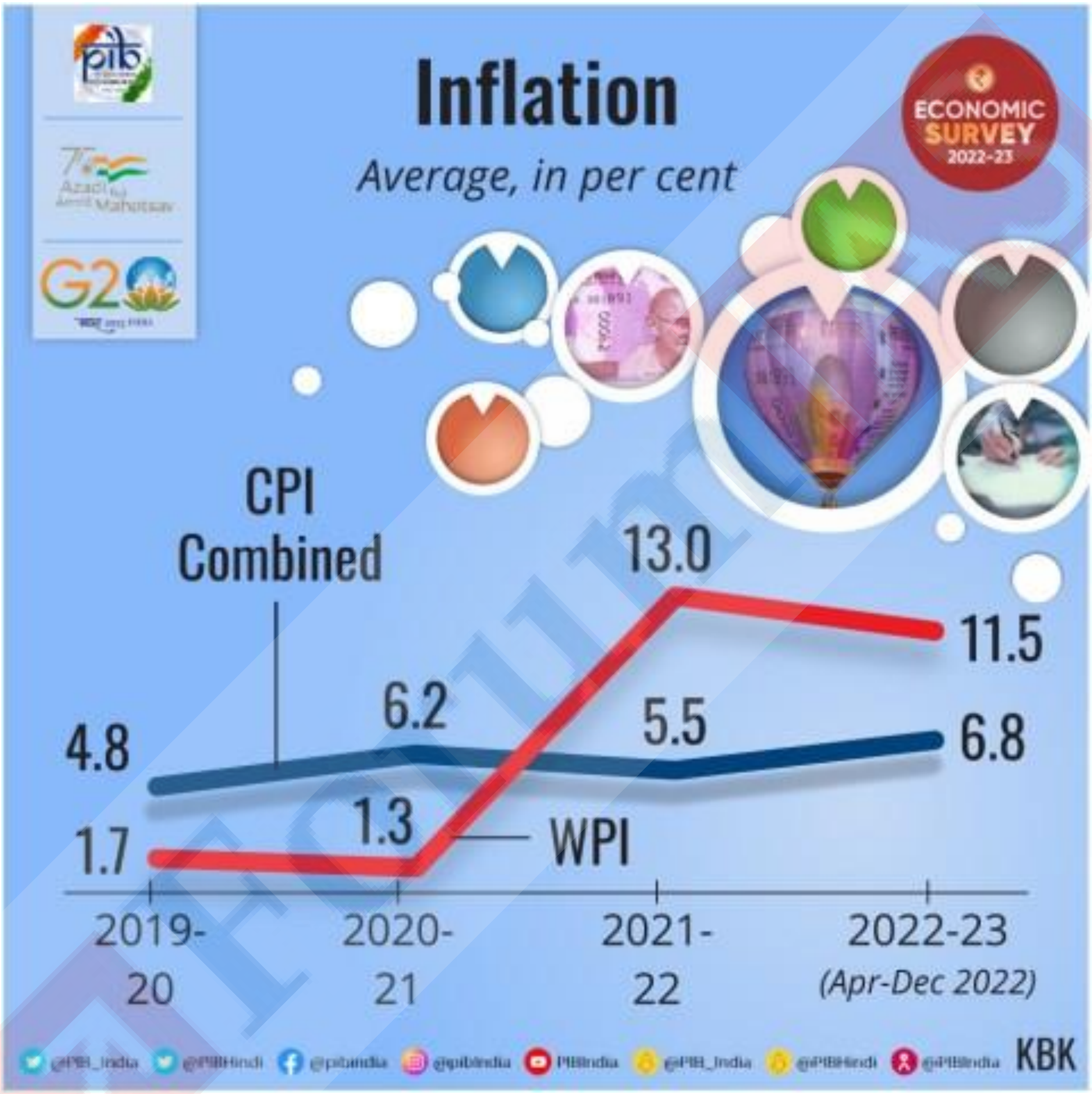
GDP Projections: In real terms, the economy is expected to grow at 7% for the year ending March 2023. (FY2022-23). This follows an 8.7% growth in the previous financial year, FY2021-22. The baseline GDP growth for 2023-24 has been projected at 6.5% in real terms. The survey has projected growth will be between 6.0%-6.8%, depending on the trajectory of economic and political developments globally.

India's growth outlook arises from : **(a)** Limited health and economic fallout for the rest of the world from the recent surge in COVID-19 infections in China and, therefore, continued **normalisation of supply chains**; **(b)** Inflationary impulses from the **reopening of China's economy** turning out to be neither significant nor persistent; **(c)** Recessionary tendencies in major Advanced Economies (AEs) triggering a cessation of monetary tightening and a return of capital flows to India amidst a stable domestic inflation rate below 6% (i.e., possibility of recession in developed countries has made their Central Banks (including US Fed) to slow down/stop the interest rate hikes, which will increase capital flow into India). This has improved investment sentiment in India.



Source: PIB

Inflation: India's retail inflation rate peaked at 7.8% in April 2022, above the Reserve Bank of India's (RBI) upper tolerance limit of 6%. Yet it was one of the lowest in the world. The inflation could be controlled through RBI's measured actions of calibrated interest rate hikes and controlling inflation expectations through regular communication.

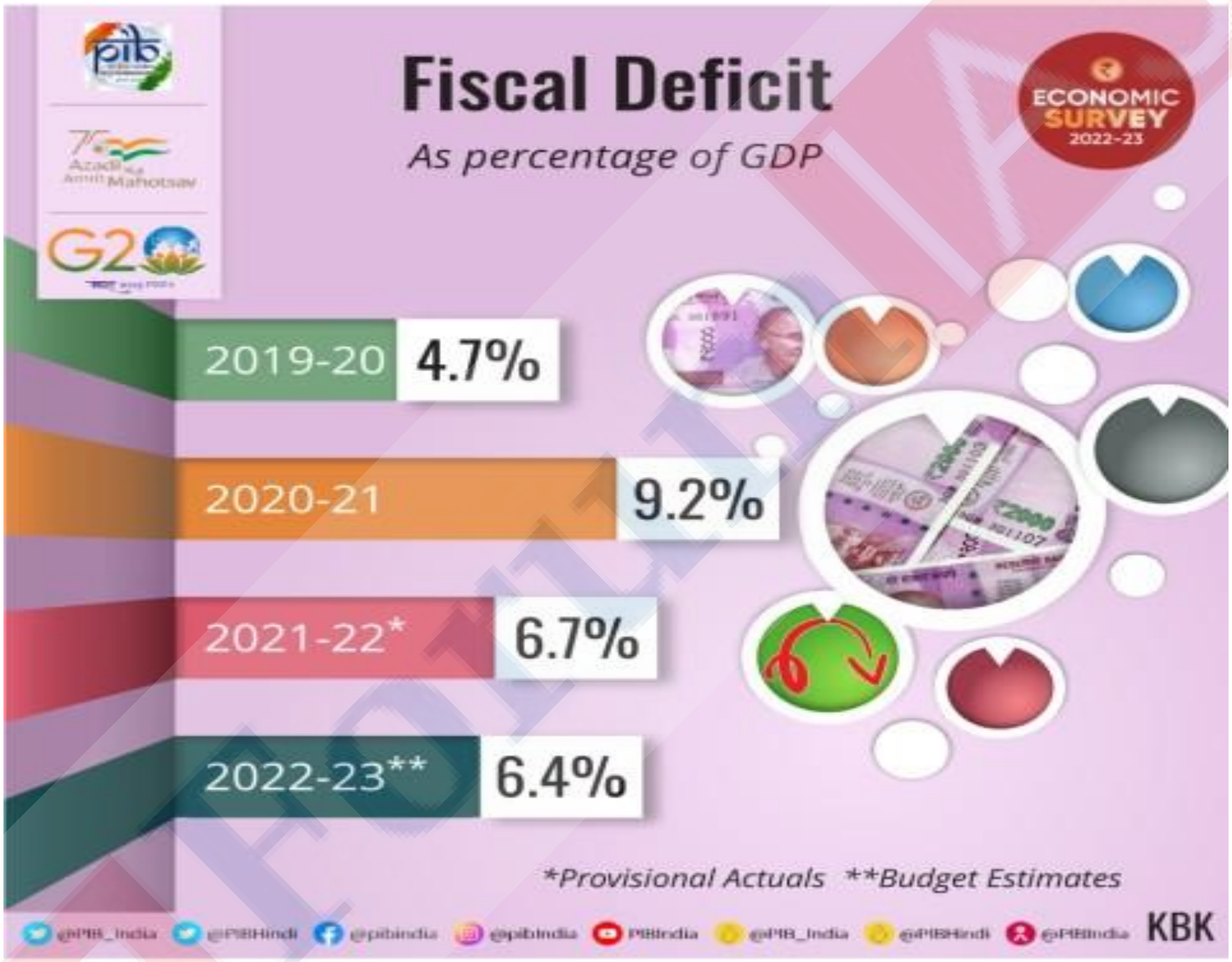


Source: PIB

Fiscal Developments: The Government's finances showed a resilient performance during the year, aided by the **recovery in economic activity**, buoyancy in revenues from direct taxes and goods and services tax (GST). The gross tax revenue registered a year-on-year growth of 15.5% from April to November 2022, driven by **robust growth in the direct taxes and GST**. **GST stabilised as a vital revenue source** for the Union and State Governments, with gross GST collections increasing 24.8% on a year-on-year basis from April to December 2022.

The Government's emphasis on Capital Expenditure (Capex) continued despite higher revenue expenditure requirements during the year. The Centre's capex rose from a long-term average of 1.7% of GDP (FY2008-09 to FY2019-20) to 2.5% of GDP in FY2021-22. Budgeted capital expenditure has risen 2.7 times in the last 7 years, from FY2015-16 to FY2022-23, re-invigorating the Capex cycle. The Government's capex-led growth strategy will enable India to keep the growth-interest rate differential positive, leading to a sustainable debt to GDP ratio in the medium run.

Despite capex push, the Government has been able to restrict **fiscal deficit** to the budgeted 6.4% of the GDP.



Source: PIB

Monetary Management: The Economic Survey 2022-23 observes that Monetary tightening by the RBI since April 2022 has led to a **moderation of surplus liquidity conditions**. The growth in credit off take is expected to sustain, and combined with a pick-up in private capex, will usher in a virtuous investment cycle (i.e. credit (loans) taken by corporate/private sector is rising, which is expected to boost investment in the economy). Credit disbursed by non-banking financial companies has also been on the rise. The gross non-performing assets ratio of scheduled commercial banks fell to a seven-year low of 5.0%.

Social Infrastructure and Employment: Government spending on the social sector witnessed a significant increase from INR 9.1 lakh crore in 2015-16 to INR 21.3 lakh crore in 2022-23. The Union and State Governments' budgeted expenditure on the health sector touched 2.1% of GDP in 2022-23 in the budget estimate and 2.2% in 2021-22 in the revised estimate.

The **JAM Trinity** (Jan-Dhan, Aadhaar and Mobile), combined with **Direct Benefit Transfers** (DBT), has **brought the marginalised sections of society into the formal financial system**, revolutionising the path of transparent and accountable governance by empowering the people. Aadhaar played a vital role in **developing the CoWIN platform** and in the transparent administration of over 2 billion vaccine doses. Due to several steps taken by the government on health, out-of-pocket expenditure as a percentage of total health expenditure declined from 64.2% in 2013-14 to 48.2% in 2018-19.

Source: PIB

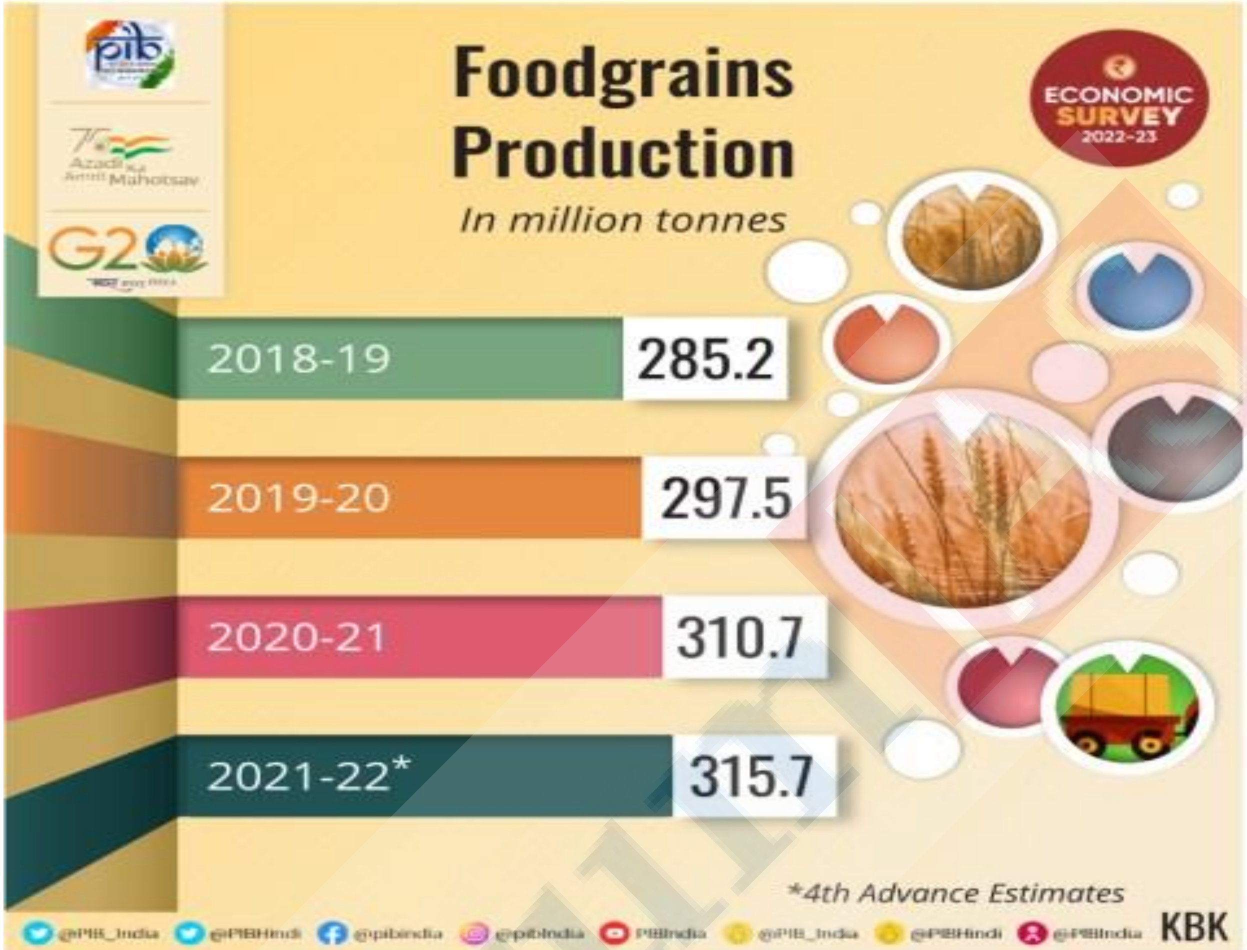
Labour markets recovered beyond pre-Covid levels, in both urban and rural areas, with **unemployment rates** falling from 5.8% in 2018-19 to 4.2% in 2020-21.

Source: PIB

Agriculture and Food Management: The performance of the agriculture and allied sector has been buoyant over the past several years, due to the measures taken by the government to **augment crop and livestock productivity**, ensure certainty of returns to farmers through **price support**, promote crop diversification, improve market infrastructure through the impetus provided for the setting up of **farmer-producer organisations** and promotion of investment in infrastructure facilities through the Agriculture Infrastructure Fund.

Source: PIB

According to the Economic Survey 2022-23, Private investment in agriculture rose to 9.3% in 2020-21. Institutional credit to the agricultural sector continued to grow to INR 18.6 lakh crore in 2021-22. The minimum support price for all mandated crops was fixed at 1.5 times of the all-India weighted average cost of production from 2018. Food grain production in India saw sustained increase and stood at 315.7 million tonnes in 2021-22.

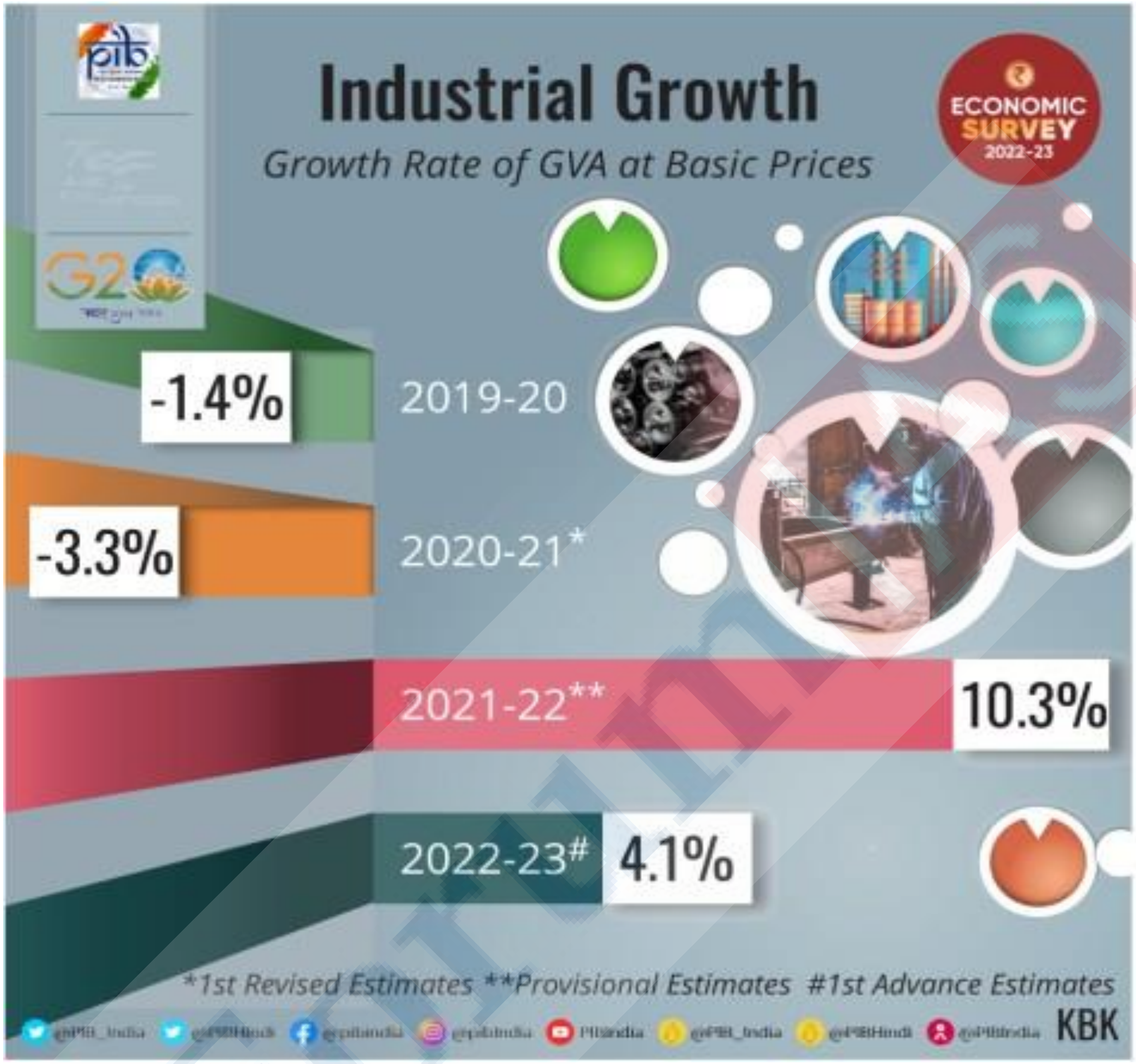


Source: PIB

Industry: Overall gross value added by the industrial sector (for the first half of 2022-23) rose 3.7%, which is higher than the average growth of 2.8% achieved in the first half of the last decade. Robust growth in private final consumption expenditure, **export stimulus** during the first half of the year, increase in investment demand triggered by **enhanced public capex** and **strengthened bank and corporate balance sheets** provided a demand stimulus to industrial growth.

Credit to micro, small and medium enterprises(MSME) has grown by an average of around 30% since January 2022 and credit to large industry has grown in double digits since October 2022. Electronics exports rose nearly threefold, from US$ 4.4 billion in 2018-19 to US$ 11.6 billion in 2021-22. India became the **second-largest mobile phone manufacturer globally**, with the production of handsets rising to 29 crore units in 2020-21 from 6 crore units in 2014-15.

The production-linked incentive (PLI) schemes were introduced across 14 categories, with an estimated capex of INR 4 lakh crore over the next five years, to plug India into global supply Investment of INR 47,500 crores has been seen under the PLI schemes in 2021-22, which is 106% of the designated target for the year.



Source: PIB

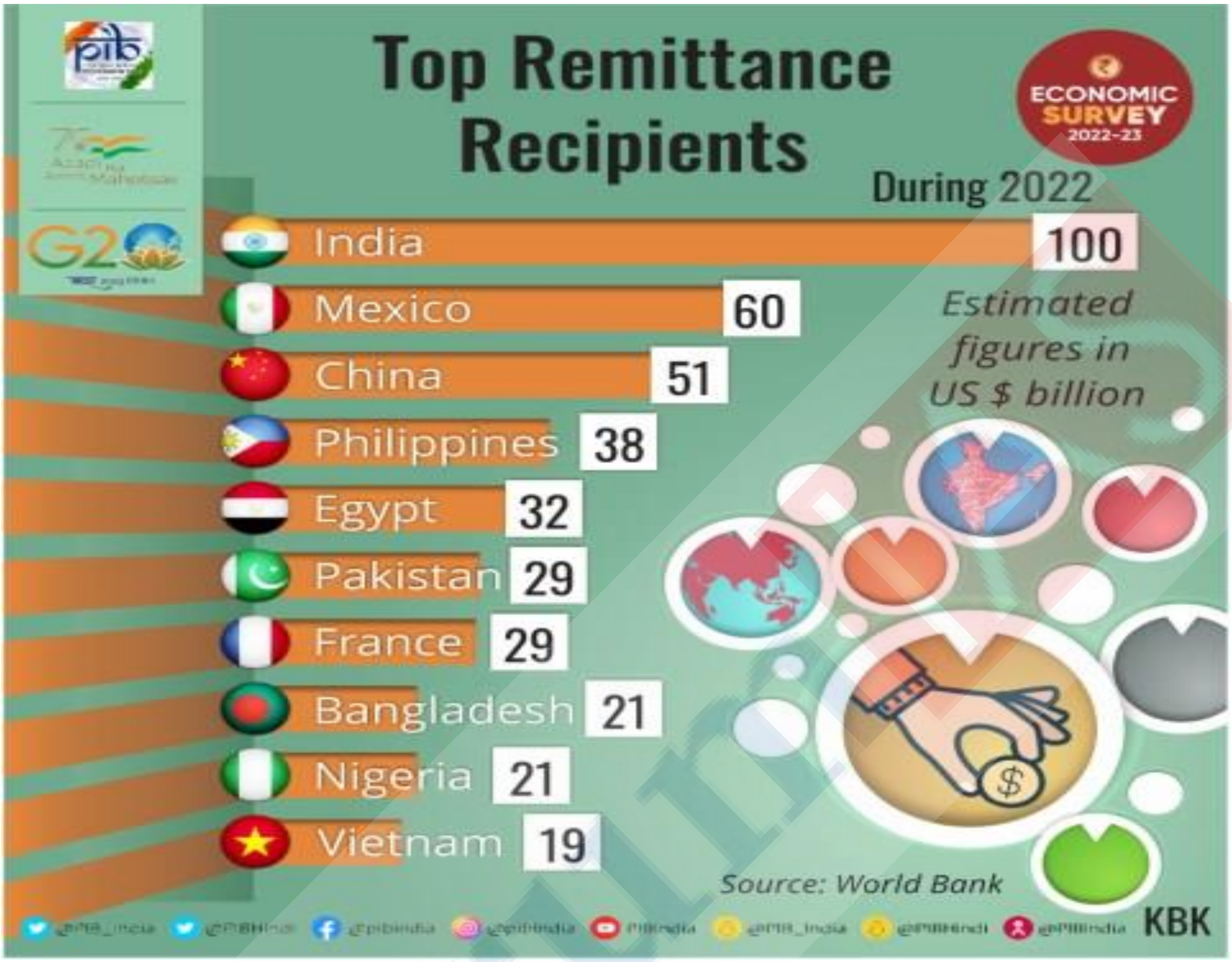
Services: The **services sector** is expected to grow at 9.1% in 2022-23, as against 8.4% in 2021-22. India was among the top ten services exporting countries in 2021, with its share in world commercial services exports increasing from 3% in 2015 to 4% in 2021.

Contact-intensive services are set to reclaim pre-pandemic-level growth rates in 2022-23. Hotel occupancy rates have improved from 30-32%t in April 2021 to 68-70% in November 2022. The **tourism sector** is showing signs of revival, with foreign tourist arrivals in India growing month-on-month. Sustained growth in the **real estate sector** is taking housing sales to pre-pandemic levels, with a 50% rise between 2021 and 2022. India's e-commerce market is projected to grow at 18% annually through 2025.

Source: PIB

External sector: Merchandise exports were $332.8 billion for April-December 2022. India has diversified its markets and increased its exports to Brazil, South Africa and Saudi Arabia. India has entered into a **Comprehensive Economic Partnership Agreement with the United Arab Emirates** and an **Economic Cooperation and Trade Agreement with Australia** in 2022.

India continued to be the **largest recipient of remittances in the world**, netting $100 billion in Remittances are the second-largest major source of external financing after service exports.



Source: PIB

As of December 2022, forex reserves stood at $563 billion covering 9.3 months of imports. As of end-November 2022, India was the **sixth-largest foreign exchange reserves holder** in the world.

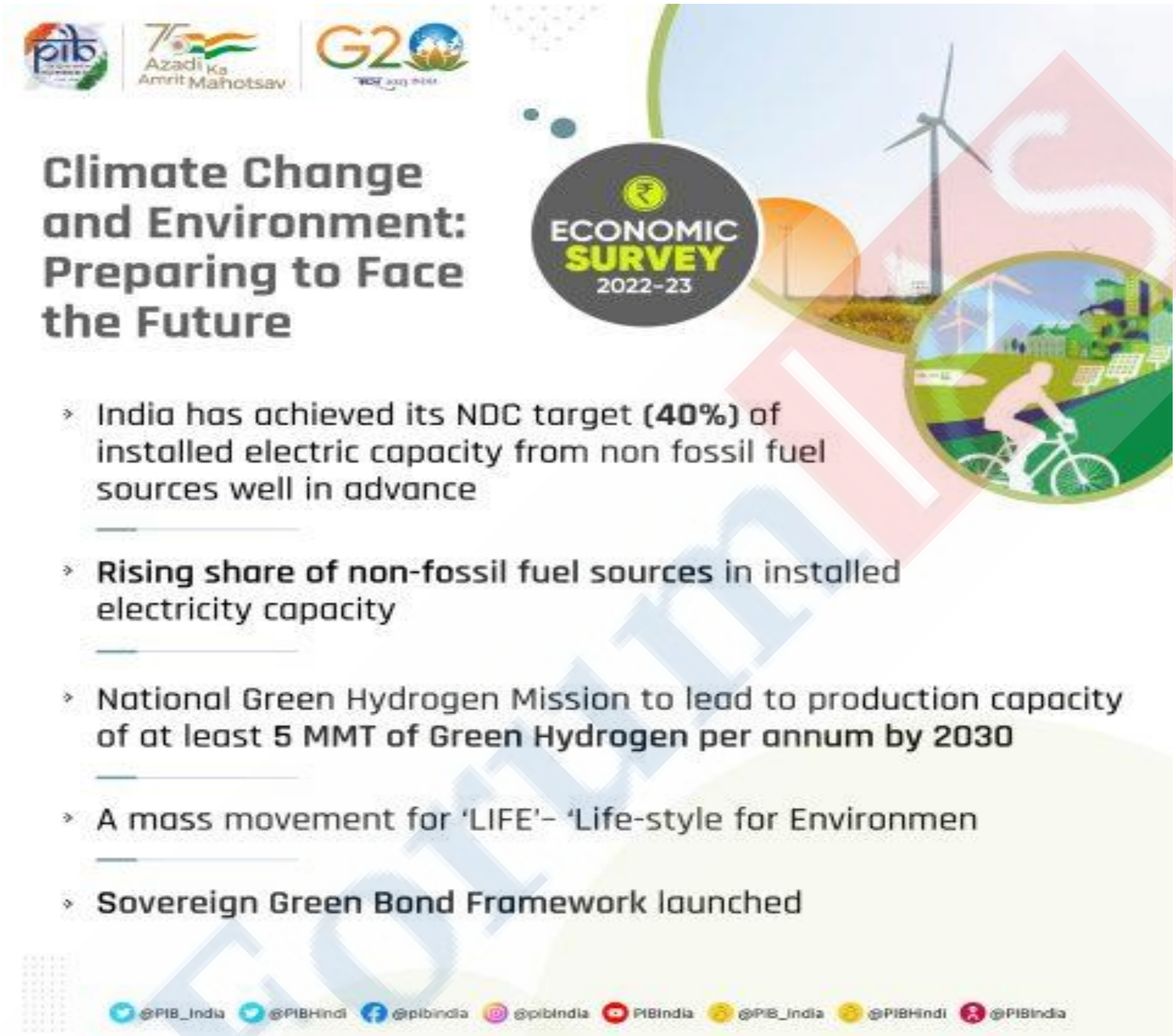
Source: PIB

Climate Change and the Environment: The Economic Survey 2022-23 points out that the global nature of the problem makes India one of the most vulnerable regions despite having contributed only about 4% in the **cumulative global emissions** (for the period 1850-2019) and maintaining its per capita emission at far less than the world average.

India has integrated the development goals with ambitious climate action goals, be it in the form of augmented **solar power capacity** (installed), higher energy saving targeting notified in PAT cycle-VII, improved green cover facilitated by Green India Mission, among other targeted Government actions.

In August 2022, the country updated the **Nationally Determined Contributions** (NDCs) in line with the PM's vision expressed in the **26th meeting of the Conference of Parties** of UNFCCC.

The **National Hydrogen Mission** and **Green Hydrogen Policy** have been introduced to enable India to be energy independent by 2047. Its pivotal role is also reflected in **India's Long Term Low Emissions Development Strategy** (LT-LEDS).



Source: PIB

Other details mentioned in the Economic Survey 2022-23

Profits from Disinvestment: In the last 9 years, approximately INR 4.07 lakh crore have been realised as disinvestment proceeds, and after 2014, the government is engaging with the private sector as a co-partner in development. As of January 2023, 48% or more than INR 31,000 crore of the budgeted amount of INR 65,000 crore had been collected.

Cryptos not Financial Assets: The Economic Survey 2022-23 has noted that cryptocurrencies have no intrinsic cashflows and that the FTX collapse highlights their risks. The Survey has noted that, "*The recent collapse of the crypto exchange FTX and the ensuing crypto market sell-off have placed a spotlight on the vulnerabilities in the crypto ecosystem.*" Crypto assets are "self-referential instruments" without intrinsic cashflows and therefore **not financial assets**. US regulators have disqualified Bitcoin, Ether, and other crypto assets as securities, according to the

Six challenges faced by the Global Economy

First, As noted by the WHO, COVID-19 pandemic is not over yet and the world is vulnerable to disruption in the economies due to an unanticipated wave and surge in cases.

Second, Russian-Ukraine conflict has caused an adverse impact on global economy with disruption in supply chains, mainly of food, fuel and fertilizers. Prolonged war will increase the uncertainties.

Third, The Central Banks across economies led by the US Federal Reserve have responded with synchronised policy rate hikes to curb inflation. This has lead to appreciation of US Dollar and the widening of the Current Account Deficits (CAD) in net importing economies. The possibility of recession has prompted the Banks to slow down the rate hike process, yet there are uncertainties of capital outflow should interest rates rise.

Fourth, Another challenge has emerged with the prospects of global stagflation. Developed economies, feeling compelled to protect their respective economic space, have been slowing cross-border trade affecting overall growth.

Fifth, China has experienced a considerable slowdown due to its policies. Slowdown in Chinese economy will have global repercussions, because of its impact on Chinese exports and imports.

Sixth, The impact of pandemic will pose a medium-term challenges due to loss of education and income-earning opportunities.

These challenges can have a direct and indirect impact on the Indian Economy.

Syllabus: GS III, Indian Economy

Source: **Indian Express**, **PIB**, **MoneyControl**, **The Times of India**, **Business Standard**

Union Budget 2023-24: Key Highlights – Explained, pointwise

Introduction

The Union Finance Minister has presented the Union Budget 2023-24 in the Parliament. This is the last full budget before the next year's General Elections. There were apprehensions that the Budget may resort to populist measures ahead of the election year. However, most economic experts have observed that the Government has tried to push for long term growth while ensuring macro-stability in the short term. The Government has focused on increasing the capital expenditure and raising more revenues through disinvestment and privatization. The Government has maintained fiscal prudence and has avoided splurging on populist schemes.

What is the vision of the Union Budget 2023-24?

The Union Finance Minister said that the vision for the *Amrit Kaal* includes **technology-driven and knowledge-based economy** with strong public finances, and a robust financial sector. To achieve this, *Jan Bhagidari* through *Sabka Saath Sabka Prayas* is essential. The Economic Agenda to achieve this focuses on 3 things: **(a)** Facilitating ample opportunities for citizens, especially the youth, to fulfill their aspirations; **(b)** Providing strong impetus to growth and job creation; **(c)** Strengthening macro-economic stability.

Source: PIB

To service these focus areas in the journey to **India@100**, **Four opportunities can be transformative** during *Amrit Kaal*, **(a) Economic Empowerment of Women**: Through formation of large producer enterprises or collectives; **(b) PM *VIIshwakarma KAushal Samman* (PM VIKAS)**: The art and handicraft created by traditional artisans represents the true spirit of *Atmanirbhar Bharat*. A package of assistance for them has been conceptualized to enable them to **improve the quality, scale and reach of their products**, integrating them with the MSME value chain. This will greatly benefit the SCs, STs, OBCs, women and people belonging to the weaker sections; **(c) Tourism**: The sector holds huge opportunities for jobs and entrepreneurship for youth in particular. Promotion of tourism will be taken up on mission mode, with active participation of States, convergence of Government programmes and public-private partnerships; **(d) Green Growth**: India is implementing many programmes for green fuel, energy, farming, mobility, buildings, and equipment, and policies for efficient use of energy across various economic sectors. These green growth efforts help in reducing carbon intensity of the economy and provides for large scale green job opportunities.

What are the Priorities of the Union Budget 2023-24?

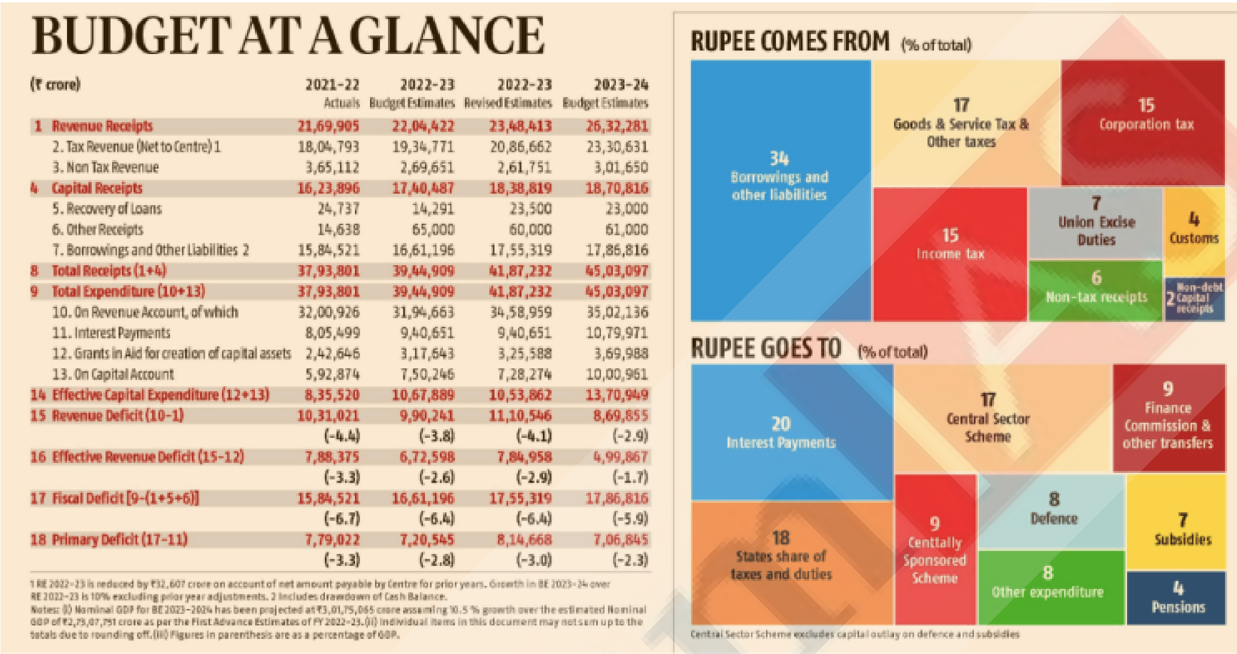
The Union Finance Minister has listed seven priorities of the Union Budget and said that they complement each other and act as the '***Saptarishi***' guiding us through the *Amrit Kaal.* They are: **(a)** Inclusive Development; **(b)** Reaching the Last Mile; **(c)** Infrastructure and Investment; **(d)** Unleashing the Potential; **(e)** Green Growth; **(f)** Youth Power; **(g)** Financial Sector.

Source: PIB

What is the break-up of Government's Revenue and Expenditure?

Revenues: The break-up of Government's Revenues are: **(a)** Corporation Tax: 15%; **(b)** Income Tax: 15%; **(c)** GST: 17%; **(d)** Union Excise Duties: 7%; **(e)** Non-Tax Receipts: 6%; **(f)** Customs: 4%; (g) Non-Debt Capital Receipts: 2%; **(h)** Borrowings (Loans etc): 34%.

Expenditure: The break-up of Government's Expenditure are: **(a)** Interest Payments: 20%; **(b)** States' Share of Taxes and Duties: 18%; **(c)** Central Sector Schemes: 17%; **(d)** Centrally Sponsored Schemes: 9%; **(d)** Finance Commission and Other Transfers: 9%; **(e)** Defence: 8%; **(f)** Subsidies: 7%; **(g)** Pensions: 4%; **(h)** Other Expenditure: 8%



BUDGET AT A GLANCE

(₹ crore)	2021-22 Actuals	2022-23 Budget Estimates	2022-23 Revised Estimates	2023-24 Budget Estimates
1 Revenue Receipts	21,69,905	22,04,422	23,48,413	26,32,281
2. Tax Revenue (Net to Centre) 1	18,04,793	19,34,771	20,86,662	23,30,631
3. Non Tax Revenue	3,65,112	2,69,651	2,61,751	3,01,650
4 Capital Receipts	16,23,896	17,40,487	18,38,819	18,70,816
5. Recovery of Loans	24,737	14,291	23,500	23,000
6. Other Receipts	14,638	65,000	60,000	61,000
7. Borrowings and Other Liabilities 2	15,84,521	16,61,196	17,55,319	17,86,816
8 Total Receipts (1+4)	37,93,801	39,44,909	41,87,232	45,03,097
9 Total Expenditure (10+13)	37,93,801	39,44,909	41,87,232	45,03,097
10. On Revenue Account, of which	32,00,926	31,94,663	34,58,959	35,02,136
11. Interest Payments	8,05,499	9,40,651	9,40,651	10,79,971
12. Grants in Aid for creation of capital assets	2,42,646	3,17,643	3,25,588	3,69,988
13. On Capital Account	5,92,874	7,50,246	7,28,274	10,00,961
14 Effective Capital Expenditure (12+13)	8,35,520	10,67,889	10,53,862	13,70,949
15 Revenue Deficit (10-1)	10,31,021	9,90,241	11,10,546	8,69,855
	(-4.4)	(-3.8)	(-4.1)	(-2.9)
16 Effective Revenue Deficit (15-12)	7,88,375	6,72,598	7,84,958	4,99,867
	(-3.3)	(-2.6)	(-2.9)	(-1.7)
17 Fiscal Deficit [9-(1+5+6)]	15,84,521	16,61,196	17,55,319	17,86,816
	(-6.7)	(-6.4)	(-6.4)	(-5.9)
18 Primary Deficit (17-11)	7,79,022	7,20,545	8,14,668	7,06,845
	(-3.3)	(-2.8)	(-3.0)	(-2.3)

1 RE 2022-23 is reduced by ₹32,607 crore on account of net amount payable by Centre for prior years. Growth in BE 2023-24 over RE 2022-23 is 10% excluding prior year adjustments. 2 Includes drawdown of Cash Balance.
Notes: (i) Nominal GDP for BE 2023-2024 has been projected at ₹3,01,75,065 crore assuming 10.5 % growth over the estimated Nominal GDP of ₹2,73,07,751 crore as per the First Advance Estimates of FY 2022-23. (ii) Individual items in this document may not sum up to the totals due to rounding off. (iii) Figures in parenthesis are as a percentage of GDP.

Source: Business Standard

Source: PIB

What is the core strategy adopted by the Union Budget 2023-24?

The Union Finance Minister chose to stick to the growth strategy that she first unveiled in 2019 when she announced a historic corporate tax cut. This growth strategy had two prongs.

Raising Capital Expenditure: Capital expenditure is the money that is spent on building productive assets such as roads, bridges and ports etc. Capital Expenditure has a greater return to the economy. The Budget has raised capital expenditure by the Government to INR 10 lakh crore. This is more than double the INR 4.39 lakh crore of 2020-21.

Fiscal Prudence: The Union Finance Minister has assured that the fiscal deficit will fall to 5.9% of the GDP. This is expected to have a salutary impact on the broader economy, as it suggests that money will be available for private entrepreneurs to borrow and invest.

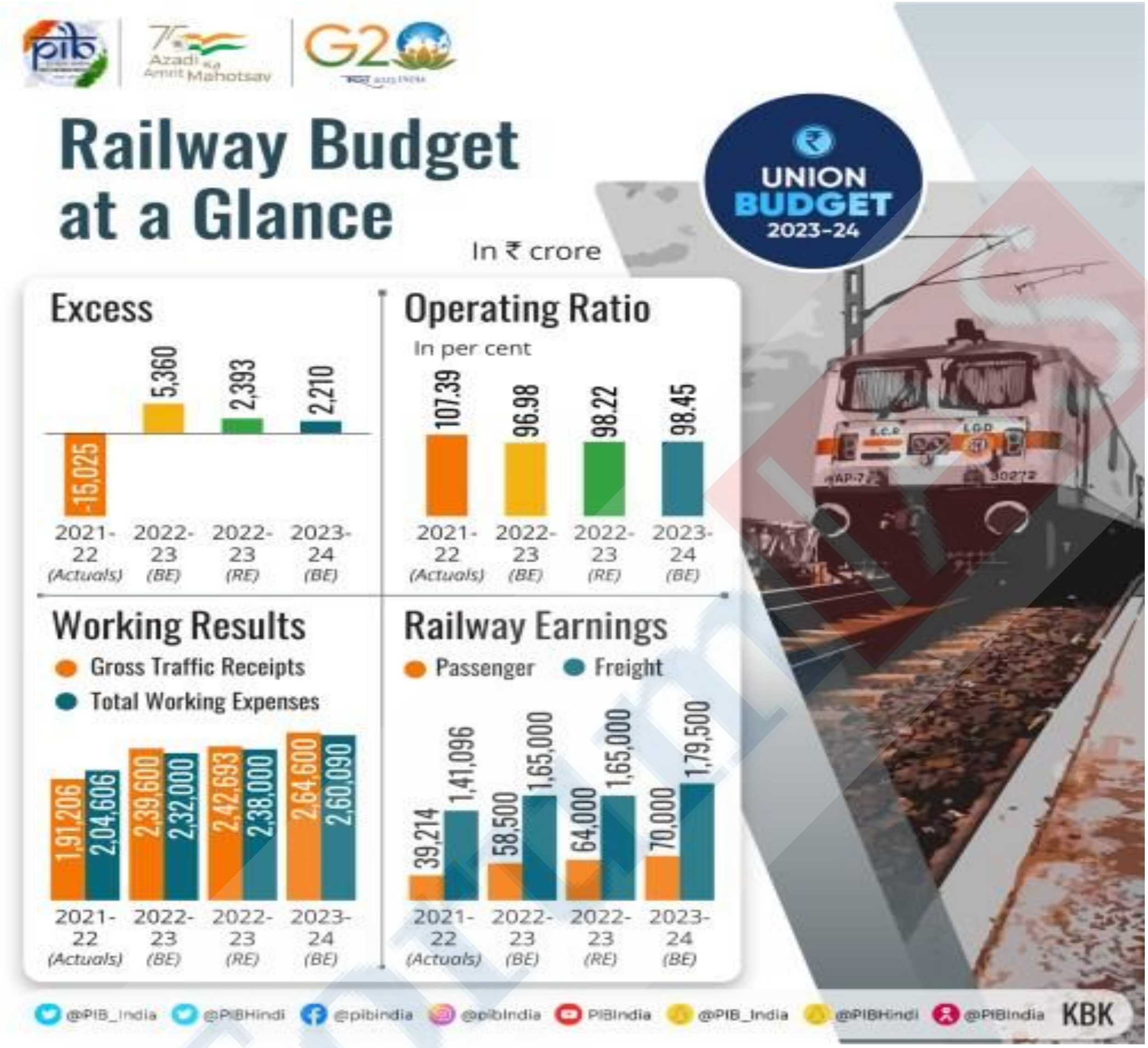
Read More: Fiscal Deficit in India: Trends and Concerns – Explained, pointwise

What are the major highlights of UnionBudget 2023-24?

Fiscal Position: The Fiscal deficit target of 6.4% for FY2022-23 has been retained in the Revised Estimate for FY2022-23. The **target for FY2023-24 has been reduced to 5.9%** (INR 17.86 lakh crore). The medium-term target is to reduce Fiscal Deficit to 4.5% by FY2025-26.

Capital Expenditure (Capex): The Capital Expenditure has been hiked by 33% to INR 10 lakh crores (3.3% of GDP). The aim is to enhance growth potential and job creation, crowd-in private investments, and provide a cushion against anticipated global slowdown. The Effective Capital Expenditure is INR 13.7 lakh crore (includes provision made for creation of capital assets through *Grants-in-Aid* to States).

Railways: An outlay of INR 2.4 lakh crore provided for Railways in FY2023-24. It's the highest ever highest ever allocation for Railways and is 9 times the amount allocated in FY2013-14.



Source: PIB

Defence Allocation: The allocation to defence sector has been hiked by 13%. Defence budget has increased to INR 5.94 lakh crore from last year's INR 5.25 lakh crore. INR 1.62 lakh crore has been set aside for capital expenditure including purchases of new weapons, aircraft, warships and other military hardware.

MSMEs: Revamped credit guarantee for MSMEs will take effect from April 1, 2023 with infusion of INR 9,000 crore in corpus. The scheme would enable additional collateral-free guaranteed credit of INR 2 lakh crore and also **reduce the cost of the credit** by about 1%. An **Entity DigiLocker** will be set up for use by MSMEs, large business and charitable trusts for storing and sharing documents online securely, whenever needed, with various authorities, regulators, banks and other business entities.

Banking: The Government has mooted amendments to the Banking Regulation Act to **improve governance in banks**.

Employment: ***Pradhan Mantri Kaushal Vikas Yojana* 4.0**, will be launched to skill lakhs of youth within the next 3 years covering **new age courses for Industry 4.0** like coding, AI, robotics, mechatronics, IOT, 3D printing, drones, and soft skills etc. 30 **Skill India International Centres** will be set up across different States to skill youth for international opportunities. **Direct Benefit Transfer** under a pan-India **National Apprenticeship Promotion Scheme** will be rolled out. A Promotion Scheme will be rolled out to provide stipend support to 47 lakh youth in three years.

Clean Energy: The Union Budget 2023-24 has provided INR 35,000 crore for priority capital investments towards energy transition and net zero objectives, and energy security. To steer the economy on the sustainable development path, Battery Energy Storage Systems with capacity of 4,000 MWH will be supported with **Viability Gap Funding**. **National Green Hydrogen Mission** with an outlay of INR 19,700 crore will facilitate the transition of the economy to low carbon intensity, reduce dependence on fossil fuel imports and enable India assume technology and market leadership.

Gems and Jewellery: To encourage the indigenous production of **lab-grown diamonds**, a research and development grant is to be provided to one of the IITs for 5 years. Basic customs duty on seeds used in the manufacture of Lab Grown Diamonds has also been reduced.

Aviation: 50 additional Airports, Heliports, Water Aerodromes, Advanced Landing Grounds will be revived to **improve regional air connectivity**.

Ease of Doing Business: The Government will bring another dispute resolution scheme ***Vivad Se Vishwas-2*** to settle commercial disputes. PAN will be used as common identifier for all digital systems of Government agencies. **One stop solution** for reconciliation and updating identity maintained by various agencies will be established using digi locker and Aadhaar as foundational identity.

Central Processing Centre will be setup for **faster response to companies** through centralized handling of various forms filed with field offices under the Companies Act. ***Jan Vishwas* Bill** to amend 42 Central Acts have been introduced to further **trust-based governance**.

The Union Budget 2023-24 has announced multiple measures to enhance business activity in **GIFT City**.

Digital Services: Scope of services in DigiLocker will be expanded. 100 labs for **developing applications to use 5G services** will be set up in engineering institutions.

Bharat Shared Repository of Inscriptions will be set up in a digital epigraphy museum, with digitization of one lakh ancient inscriptions in the first stage. **iGOT *Karmayogi***, an integrated online training platform, has been launched to provide continuous learning opportunities for lakhs of government employees to upgrade their skills and facilitate people-centric approach.

Phase 3 of e-Courts projects will be launched with outlay of INR 7,000 crore

Urban Development: Urban Infrastructure Development Fund (UIDF) will be established through use of Priority Sector Lending shortfall, which will be managed by the National Housing Bank, and will be used by public agencies to create urban infrastructure in Tier 2 and Tier 3 cities.

Cities will be incentivised to **improve creditworthiness for municipal bonds**.

Under the **NAMASTE (National Action Plan for Mechanised Sanitation Ecosystem) scheme**, the Union government will endeavour to enable **100% mechanical desludging of septic tanks and sewers** in all cities and towns.

Housing: Outlay for **PM *Awaas Yojana*** has been enhanced by 66% to over INR 79,000 crore. The Union Government will continue to provide **50-year interest-free loans** to State Governments for one more year.

Tribal Welfare: ***Pradhan Mantri* Primitive Vulnerable Tribal Group** (PM PVTGS) mission is being launched to improve socio-economic condition on PM PVTGS. INR 15,000 crore will be spent over next three years for providing safe housing, sanitation, drinking water, and electricity to tribals.

Health: The Union Budget 2023-24 has announced an allocation of INR 89,155 crore for the Ministry of Health, which is just 3.43% higher than its FY2022-23 outlay of INR 86,200.65 crore.

A new programme for research in pharmaceuticals will be formulated and the industry will be encouraged to invest in research. A Mission to **eliminate Sickle Cell Anaemia by 2047** will be launched, which will entail awareness creation, universal screening of 7 crore people in the age group of 0-40 years in affected tribal areas.

Education: 157 new nursing colleges will be established in colocation with the existing 157 medical colleges established since 2014. ***Eklavaya* Model Residential Schools** to be set up in the next 3 years. The Union Government will recruit 38,800 teachers and support staff for 740 schools serving 3.5 lakh tribal students.

National Digital Library will be set up for children and adolescents. States will be encouraged to set up physical libraries for children at panchayat and ward levels and provide infrastructure for accessing the National Digital Library resources.

Artificial Intelligence: Three **Centres of Excellence for Artificial Intelligence** to be set-up in top educational institutions to realise the vision of '**Make AI in India and Make AI work for India**'.

Agriculture: An **Agriculture Accelerator Fund** will be set up to **encourage agri-startups** by young entrepreneurs.

A new sub-scheme of **PM *Matsya Sampada Yojana*** with targeted investment of INR 6,000 crore will be launched to further enable activities of fishermen, fish vendors, and micro/small enterprises, improve value chain efficiencies, and expand the market.

Digital Public Infrastructure for Agriculture will be built as an open source, open standard and inter operable public good to enable inclusive farmer centric solutions and support for growth of agri-tech industry and start-ups. Computerisation of 63,000 Primary Agricultural Credit Societies (PACS) with an investment of INR 2,516 crore has been initiated.

PM Programme for Restoration, Awareness, Nourishment and Amelioration of Mother Earth (PM-PRANAM) will be launched to incentivize States and Union Territories to **promote alternative fertilizers and balanced use of chemical fertilizers**. Over the next 3 years, one crore farmers will **get assistance to adopt natural farming**.

To make India a global hub for 'Shree Anna', the Indian Institute of Millet Research, Hyderabad will be supported as the Centre of Excellence for sharing best practices, research and technologies at the international level.

500 new '**Waste to Wealth' plants** under **GOBARdhan** (Galvanizing Organic Bio-Agro Resources Dhan) scheme will be established for promoting **circular economy** at total investment of INR 10,000 crore.

5% compressed biogas mandate will be introduced for all organizations marketing natural and bio-gas.

***Atmanirbhar* Clean Plant Program** with an outlay of INR 2200 crore will be launched to boost availability of disease-free, quality planting material for high value horticultural crops.

Source: PIB

Tourism: 50 tourist destinations will be selected through challenge mode to be developed as a whole package for domestic and international tourism. States will be encouraged to set a '**Unity Mall**' in State Capital or the most popular tourist destination in the State for the promotion and sale of '**OneDistrict, One product**' and GI products and other handicraft. Tourism infrastructure and amenities will be facilitated in border villages through the **Vibrant Villages Programme**.

What are the Tax proposals mentioned in Union Budget 2023-24?

Direct Taxes

To further improve tax payer services, it has been proposed to roll out a next-generation **Common IT Return Form** for tax payers' convenience, along with plans to strengthen the grievance redressal mechanism.

Rebate limit of Personal Income Tax has been increased to INR 7 lakh from the current Rs. 5 lakh in the **New Tax Regime** (NTR). New Tax slabs have also been proposed under the NTR. Highest surcharge rate is proposed to be reduced from 37% to 25% in the NTR. This to further result in reduction of the maximum personal income tax rate to 39%. The NTR will be made the **default tax regime**. However, citizens will continue to have the option to avail the benefit of the Old Tax Regime.

TDS rate will be reduced from 30% to 20% on taxable portion of EPF withdrawal in non-PAN cases.

Agniveer Fund will be provided **EEE status**. The payment received from the ***Agniveer* Corpus Fund** by the *Agniveers* enrolled in *Agnipath* Scheme, 2022 are proposed to be exempt from taxes. (*EEE stands for Exempt-Exempt-Exempt meaning part of income invested is exempted (not taxed), interest earned on investment is exempt and the investment at the time of withdrawal is exempt*).

Source: PIB

Indirect Taxes

The number of basic customs duty rates on goods, other than textiles and agriculture, has been reduced to 13 from 21.

Excise duty has been exempted on **GST-paid compressed bio-gas** contained in blended compressed natural gas.

Customs Duty exemption on specified **capital goods/machinery for manufacture of lithium-ion cell** for use in battery of electrically operated vehicle (EVs) has been extended to March 2024.

Source: PIB

Legislative Changes in Customs Laws

Customs Tariff Act will be amended to clarify the intent and scope of provisions relating to Anti-Dumping Duty (ADD), Countervailing Duty (CVD), and Safeguard Measures.

The CGST Act will be amended to raise the minimum threshold of tax amount for launching prosecution under GST from INR One crore to Two crore. It will also decriminalise certain offences.

What are other significant proposals in the Union Budget 2023-24?

Aspirational Blocks Programme covering 500 blocks launched for saturation of essential government services across multiple domains such as health, nutrition, education, agriculture, water resources, financial inclusion, skill development, and basic infrastructure.

New Infrastructure Finance Secretariat will be established to enhance opportunities for private investment in infrastructure.

National Data Governance Policy will be brought out to unleash innovation and research by start-ups and academia.

Mangrove Initiative for Shoreline Habitats and Tangible Incomes, (MISHTI) will be taken up for mangrove plantation along the coastline and on salt pan lands, through convergence between MGNREGS, CAMPA Fund and other sources:

Green Credit Programme will be notified under the Environment (Protection) Act to incentivize and mobilize additional resources for environmentally sustainable and responsive actions.

***Amrit Dharohar* Scheme** will be implemented over the next three years to encourage optimal use of wetlands, enhance bio-diversity, carbon stock, eco-tourism opportunities and income generation for local communities.

National Financial Information Registry will be set up to serve as the central repository of financial and ancillary information for **facilitating efficient flow of credit**, promoting **financial inclusion**, and fostering financial stability. A new legislative framework will be designed in consultation with RBI to govern this credit public infrastructure.

To commemorate *Azadi Ka Amrit Mahotsav*, a one-time new small savings scheme, **Mahila Samman Savings Certificate** will be launched. It will offer deposit facility upto INR 2 lakh in the name of women or girls for tenure of 2 years (up to March 2025) at fixed interest rate of 7.5%.

What are the concerns associated with the Union Budget 2023-24?

First, Economists observe that the Income Tax exemptions under the Old Tax Regime promoted savings, which support investments. The New Tax Regime's push towards consumption may hurt India's savings rate.

Second, the funds allocated to the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) have been slashed by ~32% for 2023-24 (INR 60,000 crore compared to the revised estimate of INR 89,400 crore for FY2022-23).

Third, As compared to FY22-23 when INR 3,200 crore was allocated to the Department of Health Research, the allocation has been reduced by 6.87%.

Fourth, Higher import taxes can have detrimental effects on the jewellery industry, including an increase in cases of corruption and smuggling.

Syllabus: GS III, Indian Economy.

Source: Indian Express, The Hindu, Business Standard, PIB

Working of the MGNREGS: Challenges and Solutions – Explained, pointwise

Introduction

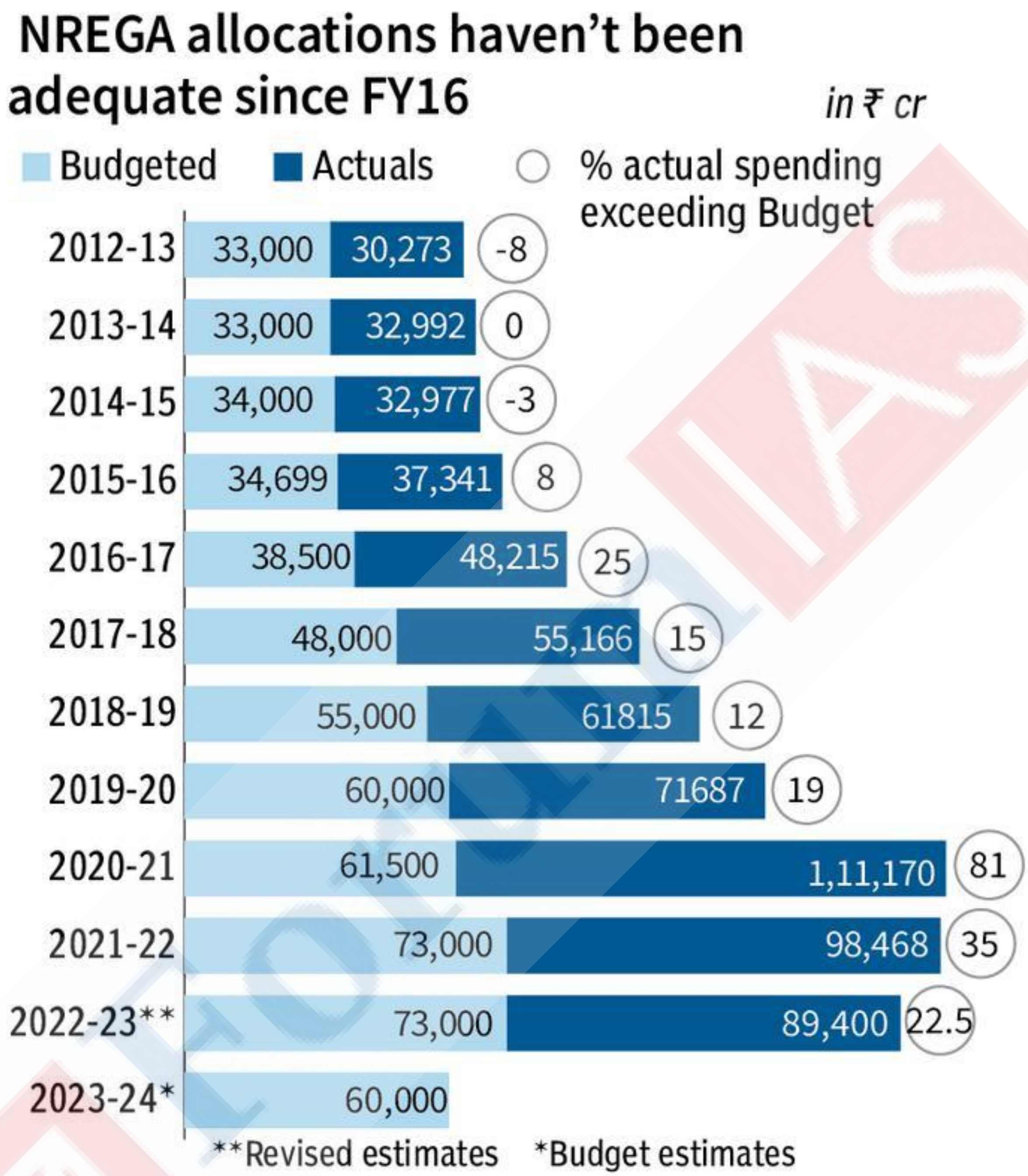
The Economic Survey 2022-23 showed that 6.49 crore households demanded work under the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS). Of these, 6.48 crore households were offered employment by the government and 5.7 crore actually availed it. The Scheme was hailed for its role in **mitigating the impact of the COVID-19 pandemic**, when the number of workers had jumped post reverse migration from urban areas during the pandemic. In the **Union Budget 2023-24**, the Government has allocated INR 60,000 crore for the MGNREGS and **has cut the funds by 33%** compared to INR 89,000 crore in FY2022-23 (Revised Estimates). The step has been criticised as neglect of the poor sections and may lead to rural distress. However, the Ministry of Rural Development has sought to allay fears by clarifying that additional funds will be made available as and when the need arises.

What is the current status of MGNREGS?

The Union Budget 2023-24 has allocated INR 60,000 crore for the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) scheme for FY2023-24. That is 18% lower than the INR 73,000 crore budget estimates for the current year (2022-23), and 33% lower than the INR 89,000 crore revised estimates (FY2022-23). The allocation in FY2023-24 is only 1.3% of the total expenditure compared to 2.1% last year.

The average days of employment provided per household is at a 5-year low in this financial year. Till January 20, the average days of employment provided per household was only 42, while it ranged between 48 and 52 days in the preceding four years.

According to Ministry Of Rural Development, the total active workers in 2022–23 are 15.12 crores. The number of households benefited were 5.78 crore in 2022-23.



Source: The Hindu BusinessLine

What are the benefits of MGNREGS?

Rural Development: The programme mandates that at least 60% of the works undertaken must be related to land and water conservation. The creation of these productive assets boost rural incomes as the majority of villages are agrarian. In some instances e.g., in Barmani village of Madhya Pradesh's Sidhi district, creation of water conservation assets have increased availability of water. Some people who used to migrate earlier have now taken up farming.

Tackling Water Stress: The water conservation structures built under MGNREGS have potentially conserved at least 28,741 million cubic metres of water in the past 15 years. The scheme has helped to mitigate the water stress to an extent.

Curtailing Distress Migration: The scheme provides support in times of distress and individuals are not forced to migrate into cities. For instance, distress migration has stopped in Bandlapalli village in Andhra Pradesh's Ananthapuramu district and the village is drought-proof today.

Women Empowerment: Women workers account for more than 33% of the workers under MGNREGS. Money is transferred directly into the accounts of these women workers. This has supported women empowerment e.g., MGNREGS has led to the formation of the country's largest group of trained women well-diggers in Pookkottukavu village of Kerala's Palakkad district.

Battling Uncertainties: There was a big jump in the number of workers from 2019-20 to 2020-21 (pandemic year). MGNREGS proved to be vital in providing relief to the migrants during the distress. It ensured income support to the vulnerable during the pandemic.

Parameter	FY 2021-22		FY 2020-21		FY 2019-20
	Value (Cr)	% Change	Value (Cr)	% change	Value (Cr)
Total Persons demanded work	11.33	-10.6%	12.67	+43.5%	8.83
Total households worked	6.61	-8.7%	7.24	+38.4%	5.23
Total Persons worked	9.52	-10.5%	10.64	+42.4%	7.47
Total Person-days	305.74	-18.1%	373.06	+46.6%	254.42
Total Person-days by women	166.23	-15.9%	197.65	+42.6%	138.64

MGNREGA: Jump in demand since the onset of the Pandemic

The above data have been compiled from the MGNREGA Public Data Portal. The data clearly indicate the jump in the MGNREGA job demand in the wake of COVID pandemic. The demand jumped by >40% between 2019-20 and 2020-21. The fall from 2020-21 to 2021-22 indicates recovery, but the demand is still ~25-30% higher than the pre-pandemic level. (% change is with respect to previous fiscal year)

Community Assets: The scheme has led to the creation of common community assets. These assets are built by communities on common lands thereby creating a sense of responsibility towards the structure which results in better care e.g., many *Johads* (percolation ponds) had remained abandoned for several years in many villages of Haryana. However, villagers revived them under the MGNREGS.

What are the challenges with the working of MGNREGS?

Gender Issues: Women and Men get equal remuneration under MGNREGS. However, various cases of discrimination against women have been reported wherein some regions, less job cards are issued to women or there are delays in the issue of cards.

Regional Inequality: The success of MGNREGS depends on the performance of individual States. Although centrally funded, studies show uneven outcomes across different States. The performance of the MGNREGS, in terms of accountability, is much better in States like Andhra Pradesh and Tamil Nadu than in states like UP and Bihar.

Insufficient Budget Allocation: MGNREGS's success on the ground is dependent on proper and consistent funding flow to the states. Funds have dried up in States due to a lack of "mother sanctions" from the Union government, causing work to be difficult during peak season. Almost every year, more than 80% of funds are depleted in the first six months. As a result, the government's claim of "record allocation" does not hold up in practise. It has actually decreased because pending liabilities from the previous year are included in the current budget. Furthermore, the allocated funds are insufficient to ensure proper implementation on the ground.

Regular Delay in Payments: There is a regular delay in payments. Moreover, there is no provision of compensation in case of delayed payments despite the order of the Supreme Court. The delay is mainly due to failed payment transfer arising from inactive Aadhaar, and closed, blocked, or frozen bank account.

Workers Penalised for Administrative Lapses: The Ministry withholds wage payments for workers of States that do not meet administrative requirements within the stipulated time period (for instance, submission of the previous financial year's audited fund statements, utilisation certificates, bank reconciliation certificates etc). It is workers who end up being penalised for administrative lapses.

Issues with Rural Banks: The rural banks are lack capacity in terms of staff and infrastructure and thus always remain hugely crowded. The workers normally have to visit the banks more than once to withdraw their wages. Due to great rush and poor infrastructure, the bank passbooks are not updated in many cases. Often, the workers do not get their wages during times of need due to the hassle and the cost involved in getting wages from the bank.

Deletion of Job Cards: There are reports of genuine job cards are being randomly deleted as there is a huge administrative pressure to meet 100% Direct Benefit Transfer (DBT) implementation targets in MGNREGA. In states like Jharkhand, there are multiple examples where the districts had later requested to resume job cards after civil society interventions into the matter.

Centralisation: A real-time MIS-based implementation and a centralised payment system has reduced the role of the representatives of the Panchayati Raj Institutions in implementation, monitoring and grievance redress of MGNREGA schemes. They have little or no power to resolve issues or make payments. The over-centralisation of the scheme has diminished the local accountabilities.

Neglect of Local Priorities: MGNREGA could be a tool to establish decentralised governance. However, with the centralisation, the local issues are getting neglected. Linking MGNREGA to construction of *Pradhan Mantri Awas Yojana* (PMAY), individual household toilets, *anganwadi* centres and rural 'haats' have been destroying the spirit of the programme and **gram sabhas and gram panchayats' plans are being neglected**.

Online Attendance: The National Mobile Monitoring Software (NMMS) App allows for real-time attendance and geo-tagged photographs of workers at Mahatma Gandhi NREGA worksites. However, there are some concerns, such as **poor internet connectivity**, **limited access to smartphones**, and **app glitche**s that have disrupted workers' daily activities. Workers are being **forced to purchase smartphones**, which is causing them to leave their jobs. Many workers have expressed dissatisfaction with the process, and many are illiterate.

What steps can be taken to improve working of MGNREGS?

The Parliamentary Standing Committee on Rural Development and Panchayati Raj has made several recommendations to improve the implementation of the Scheme.

Increase in number of days of work: Under the scheme, State governments can ask for 50 days of work, in addition to the guaranteed 100 days, in case of exigencies arising from natural calamities. It recommended increasing the guaranteed days of work under the scheme from 100 days to 150 days.

Revision of permissible works: The Committee observed that the ambit of permissible works under the scheme requires frequent revision. It recommended the Ministry of Rural Development to consult stakeholders and include area-specific works under MGNREGA as per local needs. These may include, construction of bunds to stop land erosion during floods, and boundary works for agricultural fields to protect them from grazing animals.

Uniform Wage Rate: Wage rates notified under MGNREGA range from INR 193 to INR 318 in different States/UTs. The Committee noted that this fluctuation in wage rates across States/UTs is not justified. It recommended devising a mechanism for a unified wage rate across the country.

Increase in wages commensurate with inflation: The Committee noted that beneficiaries of MGNREGA generally belong to poor and marginalised sections of society. It observed that the nominal wages under MGNREGA discourage beneficiaries and propel them to either seek more remunerative work or migrate to urban areas. The Committee noted that **indexing MGNREGA wages to Consumer Price Index (CPI)-Rural** as opposed to CPI-Agricultural Labour, (as recommended by Dr. Nagesh Singh Committee), has not been implemented. The Standing Committee recommended the Ministry to review its position and increase the wages.

Delay in Compensation: In case of delay in payment of wages under MGNREGA, beneficiaries are entitled to compensation at the rate of 0.05% of unpaid wages per day for the duration of delay. The Committee noted that payment of delay compensation is not adhered to in most places in the country. The Ministry must ensure strict compliance in payment of compensation.

Social Audits: Under MGNREGA, the Gram Sabha must conduct regular social audits of all projects taken up within the Gram Panchayat. The Committee observed that implementation of this provision is poor. The Gram Panchayats must not go unaudited during the financial year. Also, Social audit reports are not publicly available. These reports must be placed in the public domain promptly after the audit exercise is over.

Appointment of Ombudsperson: Under the Act, there should be an ombudsperson for each district who will receive grievances, conduct enquiries, and pass awards. Out of 715 possible appointments, so far only 263 ombudsmen have been appointed which shows poor coordination between the Union and State nodal agencies. Punitive measures can be imposed or funds can be stopped for States for failing to appoint ombudsmen. The Committee recommended the Department of Rural Development to bring on board all State governments to comply with appointment of ombudsmen.

Syllabus: GS II, Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

Source: Indian Express, The Hindu, The Hindu, Down to Earth

MSMEs: Significance, Challenges and Solutions – Explained, pointwise

Introduction

The year 2023 has started on an optimistic note. The economy seems to be on the path of recovery post the challenges posed by the COVID-19 pandemic and the Russia-Ukraine War, although global uncertainties remain. The Industrial sector has received much attention especially the role of large businesses in economic recovery. However the Micro, Small and Medium Enterprises (MSME) sector is more crucial as MSMEs are the largest employers in India outside of agriculture. The Union Budget 2023-24 has introduced several enabling provisions for the growth of the MSMEs. However, MSMEs continue to face several challenges. Addressing these challenges can ensure not only faster overall economic growth, but also make the growth process more sustainable and inclusive.

What are the MSMEs?

MSME (Micro, Small, and Medium Enterprise) are regulated under the **Micro, Small & Medium Enterprises Development (MSMED) Act, 2006**. MSMEs are managed under the Ministry of MSME. Earlier, MSMEs were **categorised based on the amount invested in plant and machinery/equipment**. With revised regulations effective from July 2020, annual turnover has also been added as a criteria. The classification criteria are: **(a) Micro Enterprise**: Investment in Plant and Machinery or Equipment is less than INR 1 crore and Annual Turnover is less than INR 5 crore; **(b) Small Enterprise**: Investment in Plant and Machinery or Equipment is less than INR 10 crore and Annual Turnover is less than INR 50 crore; **(c) Medium Enterprise**: Investment in Plant and Machinery or Equipment is less than INR 50 crore and Annual Turnover is less than INR 250 crore.

Statutory Bodies: The Ministry of MSME heads 5 statutory bodies

Khadi and Village Industries Commission (KVIC): It is a statutory organisation engaged in promoting and developing khadi and village industries for providing employment opportunities in rural areas, thereby strengthening the rural economy.

The Coir Board: It is a statutory body established for promoting overall development of the coir industry and improving living conditions of workers in the industry.

National Small Industries Corporation Limited (NSIC): It was established in 1955. It is responsible for promoting, aiding and fostering growth of micro and small enterprises in the country, generally on commercial basis.

National Institute for Micro, Small and Medium Enterprises, (NI-MSME): It was established in 1960. It is responsible for enterprise promotion and entrepreneurship development, enabling enterprise creation, performing diagnostic development studies for policy formulation, etc.

Mahatma Gandhi Institute for Rural Industrialisation (MGIRI): The objectives of the Mahatma Gandhi Institute for Rural Industrialisation (MGIRI) are to accelerate rural industrialisation for sustainable village economy, empower traditional artisans, encourage innovation through pilot study and R&D for alternative technology using local resources.

These bodies are responsible for aiding MSMEs with respect to Government schemes and policies.

What is the significance of MSMEs?

Contribution to GDP and Exports: In 2020-21, MSMEs accounted for 26.8% of Gross Value Added (GVA). The contribution of MSMEs in exports stood at 42.6% (April 2022-August 2022).The contribution of Manufacturing MSME Gross Value Added (GVA) contributed 38.4% of India's total Manufacturing GVA (2020–21).

As Indian economy is poised to reach US$ 5 trillion status, the Ministry of MSME has set a goal of increasing its contribution to GDP to 50% by 2025.

Rural Development: 51% of MSMEs are located in rural areas. In contrast to large corporations, MSMEs have aided in the **industrialization of rural areas at a low capital cost**. The sector has made significant contributions to the **rural socioeconomic growth** while also supplementing major industries.

Creation of Employment: MSMEs are India's largest employer outside of agriculture. They employ over 11.1 crore people, or 45% of all workers, and have low capital and technology requirements. MSMEs are key to the Make in India mission.

Simple Structure: Given India's middle-class economy, MSMEs offers the **flexibility of starting with limited resources** under the owner's control. As a result, making decisions becomes easier and more efficient . A large corporation, on the other hand, requires a specialist for every departmental function due to its complex organisational structure.

Innovation Promotion: They support local resource mobilisation, capacity building, industrial development in rural areas, and give aspiring entrepreneurs a chance to develop innovative products. It has enormous potential for connecting India's MSME base with large corporations. Multinational corporations are increasingly purchasing semi-finished and auxiliary products from small businesses.

Social Inclusion: According to the Annual Report of The Ministry of MSMEs (2021-22), the socially backward groups owned almost 66.27% of MSMEs. In rural areas, almost 73.67% of MSMEs were owned by socially backward groups.

Statement No. 2.4: Percentage Distribution of enterprises by social group of owner in rural and urban Areas.

Sector	SC	ST	OBC	Others	Not known	All
Rural	15.37	6.70	51.59	25.62	0.72	100.00
Urban	9.45	1.43	47.80	40.46	0.86	100.00
All	12.45	4.10	49.72	32.95	0.79	100.00

Source: Annual Report, Ministry of MSMEs (2021-22)

MSMEs can play a significant role in creating an inclusive and sustainable society. They encourage **balanced regional development**, gender equity, and the use of banking services and products. In light of the information presented above, MSMEs can become the '**growth engine of the nation**'.

What are the challenges faced by MSMEs?

Financial Constraints: This is a significant impediment for the MSME sector. Only 16% of SMEs have timely access to finance, forcing small and medium-sized businesses to rely on their own resources.

Lack of Formalisation: Almost 86% of the country's manufacturing MSMEs are unregistered. Only about 1.1 crore of the 6.3 crore MSMEs are registered with the Goods and Services Tax (GST) regime, and the number of income tax filers is even lower. As a result of limited availability and access to data, as well as legacy underwriting methods, the credit requirement of Indian MSMEs' have largely gone unmet.

Access to Technology: Majority of MSMEs use outdated technology that prevents them from keeping up with the modern world. Adoption of new technology and training employees is difficult and expensive, especially in manufacturing where both physical equipment and software are involved. Lack of access to IT education contributes to the technological gap. Another significant factor is a **lack of awareness**, which **reduces willingness to invest in advanced technology solutions**.

Skill Development: Skilled employees are critical for business growth. Multinational corporations (MNCs) recognise this and place on-the-job training at the heart of their operations. Unfortunately, small-scale businesses **fail to upskill their workforce**, causing them to suffer unknowingly.

Creativity: Businesses are becoming more **knowledge-based**, and their success and survival are inextricably linked to their **creativity**, and **innovation**. To remain competitive, MSMEs must learn and incorporate the process of innovation into their daily operations. However, they lack the resources and capacity to undertake innovations.

Competition: Because of increased competition, Indian MSMEs are finding it difficult to sell their products in both domestic and international markets. Small-scale enterprises face stiff competition from global counterparts as well as domestic giants due to their **massive scale of operation** (large corporations). While the government does provide protection for such small-scale businesses, competition remains largely one-sided.

Red-Tapism: MSMEs require various approvals and entrepreneurs are forced to navigate various government departments in order to obtain construction permits, enforce contracts, pay taxes, start a business, and trade across borders. In addition, regulatory risks and policy uncertainty limit scaling-up of MSMEs.

What steps have been taken to support MSMEs?

Credit and Financial

Prime Minister's Employment Generation Programme: The scheme, implemented by the KVIC, aims to generate employment opportunities in rural and urban areas by setting up new self-employment ventures/projects/micro enterprises. The programme also aims to provide continuous sustainable employment to prospective artisans and unemployed youth and increase the wage-earning capacity of artisans and contribute to the growth of rural and urban employment.

Credit Linked Capital Subsidy Scheme: Its objective is to **facilitate technology upgrade** among MSEs (Micro and Small) by providing capital subsidy of 15% (on institutional finance of up-to Rs 1 crore availed by them) for induction of well-established and improved technology in the specified 51 sub-sectors/products.

Credit Guarantee Trust Fund for Micro and Small Enterprises (CGTMSE): It provides collateral-free credit to the micro and small enterprise sector.

Special Credit Linked Capital Subsidy Scheme (SCLCSS): This scheme will help enterprises in the services sector meet various technology requirements. It also has a provision to grant 25% capital subsidy for procurement of plant & machinery and service equipments through institutional credit to MSMEs owned by SC/ST entrepreneurs without any sector specific restrictions on technology upgradation.

Raising and Accelerating MSME Performance (RAMP): The scheme aims at strengthening institutions and governance at the Centre and State, improving Centre-State linkages and partnerships and improving access of MSMEs to market and credit, technology upgradation and addressing issues of delayed payments and greening of MSMEs..

Mudra Loan Scheme: It was launched in April, 2015 for providing loans up to INR 10 lakh to the non-corporate, non-farm small/micro enterprises. It encompasses 3 financing loans: ***Tarun*** (loans up to INR 10 Lakhs), ***Kishore*** (loan up to INR 5 Lakhs), ***Shishu*** (loan up to INR 50,000).

Skill Development and Training

A Scheme for Promotion of Innovation, Rural Industry & Entrepreneurship (ASPIRE): The objectives of this scheme are to create new jobs, promote entrepreneurship culture in the country, promote innovation in the MSME sector.

Entrepreneurship and Skill Development Programmes (ESDP): Under this, the Ministry of MSME has been organising several programmes focussing on the process of improving skills and knowledge of entrepreneur, and enhancing the capacity to develop, manage and organise a business venture.

Infrastructure

Scheme of Fund for Regeneration of Traditional Industries (SFURTI): The objectives are to organise traditional industries and artisans into clusters to make them competitive and provide support for their long-term sustainability, enhance marketability of products of such clusters, build innovative products, improve technologies etc. The scheme cover **three types of interventions**, e.g., **soft intervention** wherein activities are held to build general awareness, counselling, skill development, etc.; **hard interventio**n which includes creating common facility centers, raw material banks, etc.; and **thematic intervention** on brand building, new media marketing, e-commerce initiatives, research and development, etc.

Scheme for Micro & Small Enterprises Cluster Development Programme (MSE-CDP): The Ministry of MSME has adopted the cluster development approach as a key strategy for enhancing productivity and competitiveness as well as capacity building of Micro and Small Enterprises (MSEs). The programme includes activities such as support funding for setting up **Common Facility Centres** (CFC) and **Infrastructure Development Projects** (IDP).

Technology Upgrade and Competitiveness

Financial Support to MSMEs in ZED Certification: The scheme promotes **Zero Defect and Zero Effect** (ZED) manufacturing among MSMEs. It provides **ZED Assessment** for their **certification** to encourage MSMEs to **constantly upgrade their quality standards** in products and processes, promote adaptation of quality tools/systems and energy-efficient manufacturing, and drive manufacturing by adopting the Zero Defect production processes and without impacting the environment.

Support for Entrepreneurial and Managerial Development of SMEs through Incubators: The objective of the scheme is to promote and support the creativity of MSME enterprises and encourage **adoption of the latest technologies** in manufacturing as well as knowledge-based innovative MSMEs.

Digitalisation: Government initiatives such as the **Digital *Saksham*** and the interlinking of the ***Udyam***, **e-*Shram***, National Career Service (NCS), and Atmanirbhar Skilled Employee-Employer Mapping (ASEEM) portals show the promise of targeted digitalisation schemes.

Services

Building Awareness on Intellectual Property Rights (IPR) for MSMEs: It has been launched to promote awareness about IPRs among MSMEs by assisting them in technology upgrade and enhancing competitiveness and effective utilisation of IPR tools.

Trade, Import and Export for MSMEs: MSME support and development organisation, National Small Industries Corporation (NSIC), will assist MSMEs working with the Agricultural and Processed Food Products Export Development Authority (APEDA) across multiple areas. APEDA members will get access to NSIC schemes, which would help them address issues pertaining to technology adoption, skills, product quality and market access.

Miscellaneous

In June 2022, the Union Government announced a new initiative called '**Promotion of MSMEs in North Eastern Region and Sikkim**'. Its main purpose is to **stimulate MSMEs in the North East** by establishing mini-technological centres, developing new and existing industrial estates, and promoting tourism.

In November 2021, NITI Aayog released a discussion paper to introduce new financial entities called '**Digital Banks**' that would fundamentally aim to **bridge the current credit gap** among India's MSMEs and get them into the formal financial fold.

Support by Private Sector

The Small Industries Development Bank of India (SIDBI) has inked a pact with **Google** to pilot **social impact lending** with financial assistance up to INR 1 crore at subsidised interest rates to micro enterprises. To reinvigorate the Indian MSME sector, Google India Pvt. Ltd. GIPL, will bring a corpus of US$ 15 million for micro enterprises as a crisis response related to COVID-19.

Digital freight forwarder Freightwalla, launched a **shipment tracking service** for MSME exporters and importers based on **predictive analytics** to help businesses tackle risks associated with shipment delays and improve supply chain efficiency.

Bombay Stock Exchange (BSE) announced that it has collaborated with the All-India MSME Association (AIMA MSME) to encourage and **promote the listing of MSMEs and start-ups**.

Meta India has announced the launch of online resource centre '**Grow Your Business Hub**', to help MSMEs find relevant information, tools and solutions curated to cater to their business goals.

What more should be done to support MSMEs?

First, There is a need to push for for **Digitisation of MSMEs**. Owing to problems like the dearth of proper infrastructure, finance, and limited knowledge, the MSME sector has been slow in going digital. Digitising the sector could help in enhancing efficiency and reliability, cutting costs, and keeping up with latest technological trends.

Digital Initiatives in the MSME Sector

- **Udyog Aadhar Memorandum**: It is a 1-page **online registration system** for MSMEs based on **self-certification**.
- **MSME Databank**: It enables the Ministry of MSME to **streamline and monitor the schemes** and pass on the benefits directly to MSMEs. MSMEs can update their enterprise information as and when required.
- **MY MSME**: It is a web-based application module in the form of a mobile app to facilitate the MSMEs to enjoy benefits of various schemes.
- **MSME *Sampark***: It is a digital platform wherein jobseekers (students or trainees of MSME Technology Centres) and recruiters can register themselves for mutually beneficial interactions.
- **MSME *Sambandh***: For effective implementation of the Public Procurement Policy, Central Ministries and Public Sector Enterprises (CPSEs) must procure 25% annual procurement from MSEs. The Ministry of MSME has launched MSME Sambandh.
- **MSME *Samadhaan***: This portal gives information about pending payments with the Central Ministries, State Governments, with respect to micro and small enterprises (MSEs).
- **MSME *Sambhav***: It is a national-level awareness programme to push economic growth by promoting entrepreneurship and domestic manufacturing.
- **Grievance Monitoring**: The Ministry of MSME has started an **MSME internet grievance monitoring system** (e-Samadhan) to help track and monitor the grievances and suggestions.

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Second, The **National Logistics Policy** can also be used to **boost the competitiveness** of MSMEs. The NLP aims to reduce logistics costs as a percentage of GDP from 13-14 percent to 8%, putting the country on par with developed nations. While lower costs will encourage more MSMEs to use logistics services powered by technology.

Third, with the advent of online **e-commerce platforms**, MSMEs have got access to a **channel to expand their markets**. However, to meet the growing demand for e-commerce in suburban and rural areas, they will require assistance. To that end, the Government could enlist **India Post** as a technologically advanced **last-mile delivery partner** capable of facilitating cash-on-delivery transactions at competitive rates.

Fourth, similarly, the unparalleled **reach of Indian Railways** can be leveraged to quickly and cost-effectively ship goods to the most remote parts of the country. This can expand the reach of products manufactured by MSMEs.

Conclusion

MSMEs can play a vital role in growth of the economy as India enters the *Amrit Kaal* phase. They can help in inclusive and balanced development and make India a global manufacturing hub. The Government has been supporting the MSMEs through various initiatives, the need is to focus on the implementation and realizing the outcomes.

Syllabus: GS III, Indian Economy; GS III, Changes in Industrial Policy and their effects on industrial growth.

Source: Indian Express, The Hindu, IBEF, PIB

Energy Transition: Challenges and Solutions – Explained, pointwise

Introduction

The window for climate action is shortening rapidly. IPCC Sixth Assessment Report had pointed out that Earth will warm up by 1.5°C (above pre-Industrial level) over the next couple of decades. According to NASA, the planet's average temperature was 1.02°C warmer in 2020 than the mean temperature between 1950-80. If the temperature rise is to be limited to 1.5°C, the emissions must peak by 2025. To limit the temperature rise, it is essential to shift away from fossil fuels. Without the Energy Transition, the planet may face disastrous consequences with rising frequency of extreme weather events. However, the path to energy transition is riddled with several challenges which has slowed down the pace of the decarbonisation of the economy. Overcoming these challenges is necessary to ensure a just and equitable shift to the sustainable economy.

Read More: The IPCC Sixth Assessment Report (Part 2) – Explained, pointwise

What is the meaning of Energy Transition?

In the present context, Energy Transitions refers to the **transformation of the energy sector** from **fossil-based systems** of energy production and consumption to **renewable energy sources**. It involves a **shift in the energy mix** to reduce, if not eliminate, the carbon emissions (and other greenhouse gases).

Switching from nonrenewable energy sources like oil, natural gas, and coal to renewable energy has been made possible by **technological advancements** and a societal and Governmental **push toward sustainability**. Energy Transition involves structural and permanent changes to energy supply, demand and prices. Energy Transition is possible when all sectors which are major consumers of energy like industrial, transportation, domestic and commercial sectors etc. are decarbonized.

The human civilisation has witnessed energy transition in the past as well, e.g., the transition from wood (as primary source of energy) to coal happened in the 17th and 18th centuries. The shift from coal to oil occurred predominantly in the 20th century. These shifts or Energy Transitions were accompanied by structural shift in other sectors like industry, transportation, energy generation etc.

What steps have been taken by India towards Energy Transition?

Commitments under Nationally Determined Contributions (NDCs): India has committed to 3 targets under the Paris Climate Action (by 2030). These include **(a)** Bringing down the emission intensity of economy (GDP) by 45% (compared to 2005 levels) by 2030; **(b)** Achieve 50% cumulative electric power installed capacity from non-fossil fuel-based energy resources by 2030; **(c)** To create an **additional carbon sink** of 2.5 to 3 billion tonnes of CO_2 equivalent through additional forest and tree cover by 2030; **(d)** To put forward and further **propagate a healthy and sustainable way of living** based on traditions and values of conservation and moderation, including through a **mass movement for 'LIFE'– 'Lifestyle for Environment'** as a key to combating climate change, among others.

Read More: India's New Climate Targets (INDCs) – Explained, pointwise

Other Climate Action: In addition to the NDCs: **(a)** India has committed to **achieve Net Zero by 2070**; **(b)** India is aiming to become a **global hub for green hydrogen** production and exports;

(c) India targets to achieve **20% ethanol blending** in petrol by 2025-26 (earlier target year was 2030).

Read More: India's Strategy for Net Zero – Explained, pointwise

Renewable Purchase Obligations (RPO): To expand capacity of renewable energy and to promote its adoption, a mandate of Renewable Purchase Obligation has been issue to the utility companies (i.e., all electricity distribution licensees should purchase or produce a minimum specified quantity of their requirements from Renewable Energy Sources).

International Solar Alliance: India is also showing global clean energy leadership through initiatives such as the International Solar Alliance, which has more than 70 member countries.

Policy Measures: The Energy Conservation (Amendment) Act, Missions like National Green Hydrogen Mission, National Policy on Biofuels, Fiscal incentives (production linked incentives), and market mechanisms (PAT Scheme, proposed Carbon Market) are examples of interventions that demonstrate India's serious commitment to energy transition.

Read More: Green Hydrogen Mission – Explained, pointwise

Other Government Initiatives: **(a)** Subsidies on Petrol and Diesel have been removed in the last decade; **(b)** Subsidies are being provided to EVs; **(c)** **FAME Scheme** (Faster Adoption and Manufacturing of Electric Vehicles) was launched in April 2015 under the National Electric Mobility Mission; **(d)** Government has provided fuel gas for cooking to millions of households enabling a steady transition away from the use of traditional biomass such as burning wood etc.

What are the challenges to Energy Transition?

Policy and Regulation: The introduction of new energy sources has required changes to current energy market regulation. The present energy transition has largely been **driven by Government policies and regulations**. In contrast, the previous energy transitions (wood to coal to oil and gas) had occurred through **inter-fuel competition**, efficiency of new fuels and market forces that accompanied the industrial development. **Misplaced policies can produce undesirable effects** e.g., critics argue that carbon tax in developed economies (the EU and the US) has shifted the polluting manufacturing units to Asian economies where regulation is lax. This has allowed MNCs to continue to emit GHGs. Such policies **haven't contributed to cut down in emissions, only shifted them from developed to developing countries**.

Read More: Carbon Markets: Benefits and Challenges – Explained, pointwise

In addition, many policies pose new associated challenges e.g., the promotion of use of ethanol as fuel has led to **diversion of crops for fuel generation**. This has raised food prices (due to diversion of maize and sugarcane for generation of fuel).

Technology: Energy generation and consumption through sustainable methods pose several technological challenges e.g., power generated through solar and wind energy is intermittent and poses challenges in **grid stability and load balancing** (e.g., solar energy is not available at night when load might be high). Hence there is requirement of large storage capacity (in batteries). Similarly, **hydrogen is highly explosive** in nature and will require **new technologies for safe production, storage, transportation and use**.

Finance: Restructuring the energy systems and development of technological solutions require access to finance. The IEA has estimated that over the next decade **US$ 1-1.3 trillion will need to be invested in the power sector per annum** (mainly in renewable energy and power networks), plus up to US$ 1 trillion per annum in improving energy use in end-use sectors. Banks and Financial Institutions will find it difficult to **finance risky investments in technology development**. Moreover, developing countries **lack access to finance** to support the Energy transition (e.g., building solar power plants and corresponding distribution infrastructure).

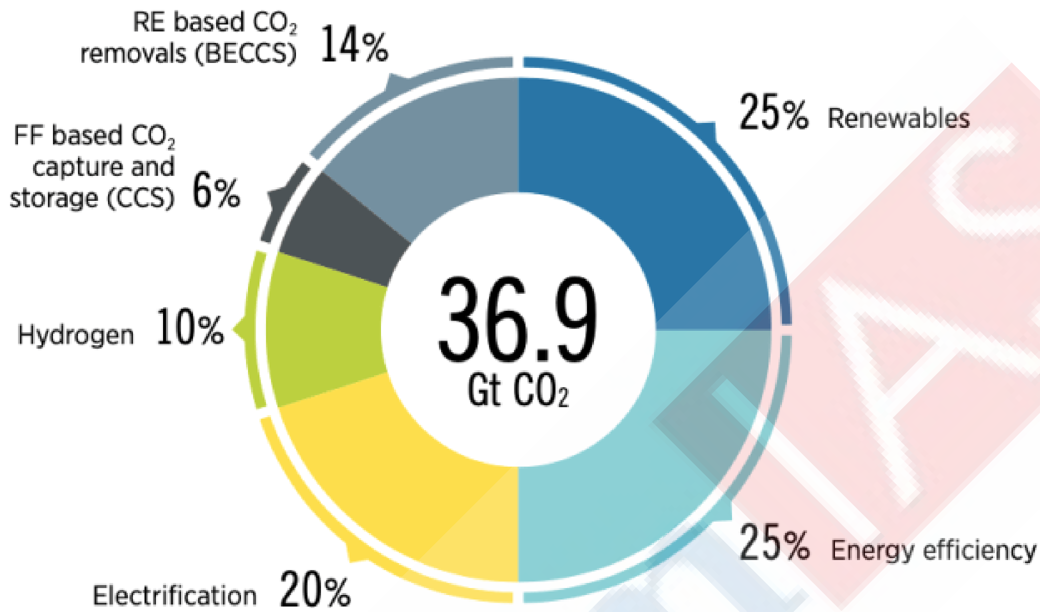
Read More: Climate Finance: Meaning, Need and Challenges – Explained, pointwise

Networks: The present energy system has large and complex network of storage and distribution systems e.g., the predominance of fossil fuel based system (hydrocarbons) has seen the development of a network of pipelines, shipping fleets, and distribution outlets that are the core asset base in the global energy system. This infrastructure will need to be **adapted or re-purposed** if it is to remain relevant to a decarbonised energy sector. There is a risk of lot of these assets ending up being stranded (i.e., rendered useless or without value). It will be difficult to adapt existing gas-based infrastructure for hydrogen as handing hydrogen requires much more safety measures.

Impact on Consumers (including energy justice and access issues): Energy transitions could give rise to **intra-generational**, **intergenerational**, and **spatial equity** concerns e.g., Transition away from fossil fuels can affect near-term fossil-dependent jobs. Government's obligation for climate action can shrink their capacity to spend on welfare programmes and thus exacerbate existing economic inequities. Consumers may be impacted by higher costs of energy from renewable resources. They may be **unwilling to adopt new systems** (e.g., Electric Vehicles) or to pay more in the short term for a product that can improve long-term welfare.

Differences about Transition Paths and Energy Mix: Different countries and regions are starting from different positions both in terms of their economic development, current energy mix, and carbon emissions. Different regions are endowed with different resources and will be try to adapt according to their circumstances. This has given rise to differences among countries (especially developed and developing) about which clean technologies should be adopted and how they should be financed.

FIGURE ES.1 **Reducing emissions by 2050 through six technological avenues**



Note: Abatement estimates include energy and process-related CO_2 emissions along with emissions from non-energy use. Renewables include renewable electricity generation sources and direct use of renewable heat and biomass. Energy efficiency includes measures related to reduced demand and efficiency improvements. Structural changes (*e.g.* relocation of steel production with direct reduced iron) and circular economy practices are part of energy efficiency. Electrification includes direct use of clean electricity in transport and heat applications. Hydrogen and its derivatives include synthetic fuels and feedstocks. CCS describes carbon capture and storage from point-source fossil fuel-based and other emitting processes, mainly in industry. BECCS and other carbon removal measures include bioenergy coupled with CCS in electricity, heat generation, and industry.

CCS = carbon capture and storage; BECCS = bioenergy with carbon capture and storage; $GtCO_2$ = gigatonnes of carbon dioxide; RE = renewable energy; FF = fossil fuel.

Source: World Energy Transitions Outlook, 2022 (IRENA). Pathway suggested by IRENA for Energy Transition.

Geopolitical and Energy Security Implications: During the 20th century the geopolitics was centered around oil and the oil rich regions. The shift to new technologies has given rise to new concerns e.g., China has large reserves of elements/materials used in new technologies and controls their supply chains. China has exploited its position for strategic purposes e.g., cutting down supply of materials to Japan.

Read More: Rare Earth Elements: Strategic Importance and Reducing Import Dependence – Explained, pointwise

What step can be taken to address challenges to Energy Transition?

Acceleration in Deployment Rates of Renewable Energy (RE): Acceleration in deployment of renewable energy (RE) is necessary to match the pace of demand growth. It is critical to India's

Just Energy Transition (JET). Meeting India's 2030 target requires accelerating non-fossil capacity addition from 16 GW a year in 2022 to 75 GW a year by 2030.

This can be accomplished through; **(a)** Solarisation of agricultural electricity demand; **(b)** Electrification of diesel-powered Micro, Small and Medium Enterprises (MSMEs); **(c)** Decentralised RE for residential cooking and heating etc. Stimulation of energy demand through rural productivity enhancement will further aid RE acceleration as well as help to address the rural-urban economic divide, create rural jobs, and thereby address inter-generational and spatial inequities.

Enhancing Finance and Technology Transfer: The developed countries must enhance climate finance and fulfil their obligations under the Paris Climate Agreement. Recognising their historical contributions, developed countries should share technology with developing countries to ensure equity in energy transition. To achieve net zero emissions by 2070, the IEA estimates that an average of $160 billion per year will be required across India's energy economy between now and 2030. That is three times the current level of investment. International financial support will be necessary.

Global Coordination: There is a need for global coordination to establish standards with respect to energy transition to ensure uniform transition (e.g., with respect to Electric Vehicles and associated infrastructure) without disruption.

Re-aligning utilization of Coal: In the long term coal will be phased out (with phase down in the medium term). In order to ensure there is minimum disruption and the existing assets are utilized there is a need to re-align the current use of coal resources to enhance efficiencies until the period of complete phase-out. Coal-fired power plants could be better utilised if located near coal mines rather than in states with the highest energy demand. This would allow coal to be used more efficiently because coal transportation requires more energy than electron transmission and would result in fewer emissions. It would also result in cheaper power, as transportation costs one-third of the cost of coal for power plants; the savings could also be used to fund much-needed emission control retrofits.

Government Support: The Government ought to support decentralised renewable energy technologies that can reduce reliance on thermal power plants, such as utility-scale battery energy storage systems. It is imperative to set aside special 'transition funds' to assist coal-dependent regions in India, some of which are among the most impoverished regions.

Alternate Livelihood Opportunities: People employed in fossil fuel based energy systems (coal mines, power plants etc.) will be losing their jobs as a result of energy transition. They will need to be retrained and provided with new employment opportunities as quickly as possible.

Decarbonising Heating and Cooling: All new buildings must be energy efficient. Decarbonising heating and cooling will require changes to building codes, energy performance standards for appliances, and mandates for r**enewables-based heating and cooling technologies**, including solar water heaters, renewables-based heat pumps and geothermal heating.

Demand-side Management: Innovation, recycling, and the circular economy will play significant roles in the pursuit of efficiency over the medium and long term.

Private Funding: Balance of private and public funding will be required to meet the investment requirements over the long term.

Conclusion

Energy Transition is the most vital aspect of shift towards green and sustainable economic systems. However, there are several challenges that may derail the transition. In addition, there are concerns related to equity especially the impact of energy transition on developing economies. There is a need for greater efforts in terms of financial support and technology sharing to ensure that the process of energy transition is equitable and least disruptive.

Syllabus: GS III, Infrastructure: Energy; GS III, Conservation.

Source: The Hindu, The Hindu BusinessLine, IRENA, TERI

Hydroelectric Projects in India: Status, Benefits and Concerns – Explained, pointwise

Introduction

The Joshimath crisis in Uttarakhand has led to large scale displacement of the local population. The Government has halted all construction activity in the region. The reason for the crisis is being attributed to development projects being undertaken in the region. This has brought attention to the large-scale hydroelectric projects being built in the region. Environmental experts argue that such large hydropower projects are not conducive to local ecology and end up doing more harm than good. Hydropower projects have several benefits and can help meet India's energy needs while meeting climate targets. However, due attention must be paid to their environmental impacts before undertaking such large projects.

What is the status of hydroelectric projects in India?

In 2022, hydropower capacity of 46,512 MW (megawatts) accounted for ~12% of total capacity. In the last two decades the most significant policy push for hydropower was the 2003 plan for developing 50,000 MW of hydropower capacity. Under the plan, 162 new hydro-electric projects were identified. Out of these, more than half the capacity identified was in Arunachal Pradesh and about a third was in the Himalayan and North-eastern states.

As of 2021, only one project of capacity of 100MW in Sikkim has been commissioned and about 4,345 MW capacity is under construction. 12 projects of total capacity of over 3,500 MW have either been terminated or held up due to local environmental concerns. 40 projects of capacity 13,633MW have either been abandoned or delayed due to local opposition to the projects.

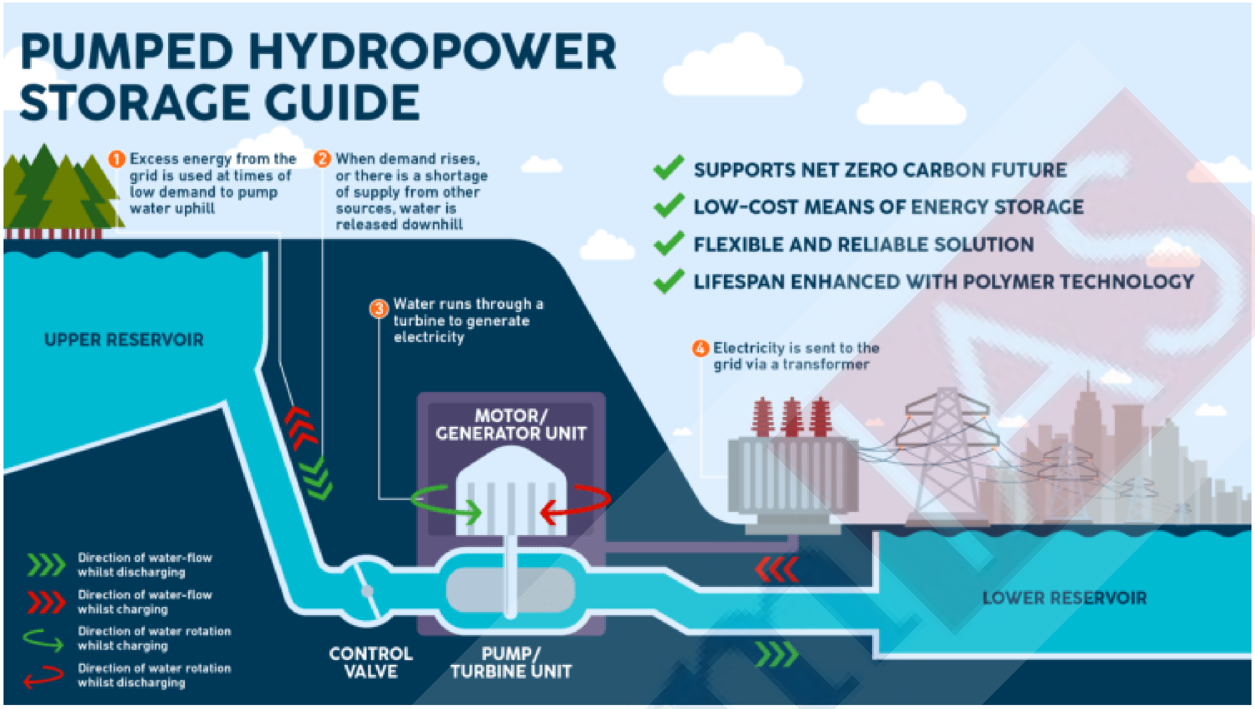
Only 37 projects got their detailed project reports (DPR) prepared with a decreased capacity of 18,487 MW.

In the last few years, many of India's newer hydro-power projects on the Himalayan rivers (commissioned or under construction) have been damaged by floods and In some cases, people trapped in project sites have lost their lives or severely injured.

What are the benefits of hydroelectric projects?

Low Carbon Emissions: Unlike the traditional fossil fuel sources of energy, using hydropower to produce electricity does not release any pollutants in the air or dirty water.

Renewable Energy: Hydropower is a renewable source of energy. The energy generated through hydropower relies on the water cycle, which is driven by the sun, making it renewable. Unlike fossil fuels, it needs no extraction of resource. It requires flow of water. It also complements other renewable energy sources. Technologies like Pumped Storage Hydropower (PSH) store energy to use in tandem with renewables such as wind and solar power when demand is high.



Source: energy.gov. Pumped Storage Hydropower. Excess energy from grid (during day) is used to pump water uphill. When demand rises, the water is released downhill generating energy.

Economic Benefits: Hydroelectric projects provide economical and reliable power over long time. They have high initial construction costs, but the long duration of projects and relatively low maintenance costs make them more viable in the long term.

Irrigation and Drinking Water: Hydropower projects have large associated benefits like provision of irrigation and drinking water.

Other Benefits: Reservoirs/Storage-based hydropower projects aid in **flood control**. Local communities can benefit from **fisheries** and other activities in the reservoirs. Large hydropower projects also support **tourism** and **recreational activities**.

Employment Generation: Hydroelectric projects support lot of economic activities and generate additional employment including in manufacturing, utilities, business services, construction, transportation, energy systems, water management, tourism etc.

Reduce Dependence on Fossil Fuel: India has large hydroelectric potential. Harnessing the potential can reduce dependence on fossil fuels (electricity mix) and save foreign exchange reserves.

What are the concerns associated with hydropower projects?

Environmental Impact: Although hydroelectric projects have little or no emissions, they have several negative environmental impacts. The storage/reservoir based dams can **disrupt the flow of rivers**, and impact its temperature and chemistry. It can reduce the flow of useful sediments downstream. It can also cause **erosion**, **landslides** and **sedimentation** that have a negative impact on the local environment. Critics have attributed the recent crisis in Joshimath and other parts of Uttarakhand on construction of large-scale hydropower electric projects among other other infrastructure products.

Land Use and Social Impact: Large hydroelectric power plants take up a large expanse of land. Submergence of land under reservoirs leads to loss of people's homes and livelihoods, important natural areas, agricultural land, or historical landmarks. Submergence can impact local wildlife and ecology.

Flooding: Dams help in flood control by acting as buffer and taking up excess water during heavy rainfall. However, in extreme weather conditions/breach of dams, the severity of floods may get worsened. This was evident in the Rishiganga tragedy in Uttarakhand in 2021.

Impact on Aquatic Life: Constructing large hydropower plants usually involves manipulating the natural course of river systems. It often blocks a river's natural flow and **obstructs fish migration routes**. Consequently, inhibited fish migration will deplete fish populations over time especially downstream the reservoir. A reduced fish population has drastic consequences for both human food supply and marine ecosystem stability.

Disruption of River System: Hydropower projects change the **concentration of nutrients**, water temperature, and the river's flow. Downstream river flow suffers a **loss of water and silt loads**, reducing water quality. These changes directly affect the ecological characteristics of the rivers that harm native plants and fish species. Dams affect the productivity and stability of estuaries . This led to a loss of habitat for aquatic life and a **decline in biodiversity**.

Greenhouse Gas Emissions: Hydroelectric generation is not 100% emission-free. Studies have shown that reservoirs created by dammed rivers emit greenhouse gases. **Dead plants** and other **organic materials in the reservoir** water decompose and **release methane** (a strong greenhouse gas) and carbon dioxide into the atmosphere. Emissions can also come from the **heating and cooling systems** used to maintain the hydroelectric equipment. The amount of greenhouse gas a hydropower reservoir emits may depend on regional factors and the specific location.

What are the benefits of Small Hydroelectric Projects ?

In India, hydro power plants with **capacity of 25 MW or below** are classified as small hydropower projects. Micro hydro systems can be classified into two main types: **run-of-river** and **storage systems**. Run-of-river systems **use the natural flow of water** in a stream or river to generate electricity. In contrast, storage systems use a reservoir to store water and release it as needed to generate electricity.

Electricity in Remote/Underserved areas: Micro-hydroelectric power generation system generates up to 100 kilowatts of electricity. The electricity generated by micro/small hydropower projects can be used for various applications, including powering homes, businesses, and small communities. They can provide electricity to **remote underserved communities** that are not connected to the grid.

Low Cost: Small hydro systems are typically **less expensive to build and maintain** than large hydroelectric dams and have a smaller environmental footprint. Their low cost makes them viable to support underserved areas (in terms of electrical connectivity).

Lesser Impact on Environment: Micro/Small hydro systems can address many environmental challenges posed by large hydroelectric projects. Being run-of-the-river, they have minimal impact on river ecology (upstream or downstream) and aquatic life. They do not disturb the fragile and unstable slopes of mountains.

Durable: They have low maintenance and operating costs. Small projects can last up to 50 years without major new investments.

What should be the approach going forward?

Ecological Sustainability: Ecological sustainability should be the topmost priority in fragile ecosystems like the Himalayas. Large hydroelectric projects should be avoided in Uttarakhand. In an affidavit filed before the Supreme Court in 2021, the Union Government had said that no new big project would be established in the upper reaches of Ganga.

Promote Small-Hydro Projects: In such fragile environments only small run-of-the-river projects should be allowed that have minimal impact on the ecosystem.

Accelerated Hydropower Development: In other areas, where ecology is not so fragile, the hydropower potential should be utilized. This is necessary to meet rising energy demand in India amidst the need to reduce dependence on fossil fuels as primary energy resources.

Private Sector Participation: The involvement of the private sector and joint ventures with the neighbouring countries can go a long way towards achieving the goal of "power to all" in the coming years

Resolving Inter-State Conflicts: Inter-State issues regarding large projects and water sharing etc. could be solved by conducting dialogues, understanding core issues and addressing these issues through various modes of discussions, negotiations, arbitrations or at last legal proceedings.

Eco-sensitive Zones: Wild life areas and national parks or national reserves should be identified. Eco-sensitive zones should be well defined before handing over of the project to the project developer.

Infrastructure Development: Inadequate infrastructure like roads, bridges etc. particularly in Arunachal Pradesh and NE states results in longer construction periods, thereby increasing the project cost. Agencies like BRO, State PWD, implementing the road sector projects need to be provided adequate support to complete the projects expeditiously. National Clean Energy Fund (NCEF) (Coal cess) can be used for development of Roads, Bridges and Infrastructure common for many Hydro projects (especially small hydro projects).

Syllabus: GS III, Infrastructure: Energy; GS III, Conservation.

Source: Indian Express, The Hindu, Economic Times, ORF

Microfinance: Status, Benefits, Challenges and Solutions – Explained, pointwise

Introduction

The RBI had recently released its 26th Financial Stability Report (December 2022). In the report, the RBI remarked that the credit to the Microfinance sector has grown at a steady pace. However, the report highlighted the building stress levels in the loans portfolio (i.e., bad loans are increasing). The share of loans overdue by more than 90 days has risen to 14% in September 2022, from 12% in March 2022. Microfinance is considered a potent tool to ensure balanced and inclusive growth, especially by providing access to credit to the rural citizens and small entrepreneurs. The rising delinquency (Being delinquent refers to a situation wherein the borrower is overdue on a loan payment by a certain number of days) in Microfinance is indicative of the challenges faced by the sector. The Government has been supporting the sector through various initiatives. The Government has to step in to address the issues faced by the sector.

What is the meaning of Microfinance?

Micro Finance is defined as 'provision of credit and other financial services and products of **very small amounts** to the poor in rural, semi urban or urban areas, for enabling them to **raise their income levels** and **improve living standards**'. It is an economic tool designed to **promote financial inclusion** which enables the poor and low-income households to come out of poverty.

Components of Microfinance

Micro credit: Micro credit is the extension of **very small loans** to borrowers who typically lack collateral, steady employment or income stream and verifiable credit history. It is designed to support small-scale entrepreneurship, alleviate poverty, empower women and uplift the poor social class by extension. Microcredit is delivered through a variety of institutional channels including Scheduled Commercial Banks (through Business Correspondents), Regional Rural Banks (RRBs), Cooperative Banks, Non-Banking Financial Companies (NBFCs) and Microfinance Institutions (MFIs).

Micro Insurance: It is the insurance with low premiums and low coverage. Micro-insurance covers low income/net-worth persons and transactions are of low value. Like normal insurance, it can cover wide range of risks including damage to crops and livestock.

Micro Saving: Micro saving is targeted at people with low incomes and low savings. They are similar to saving accounts, but designed for small deposits. Typically, the limit of minimum deposit/balance is low and there are no service charges.

Microfinance Institutions: Institutions providing Microfinance services are called Microfinance Institutions (MFIs). A large number of organisations with varied size and legal forms offer Microfinance services. The MFIs exist as separate institutions because of the unique features of Microfinance like high transaction costs, short duration of loans, high frequency of repayment/instalments, absence of collateral and relatively higher rate of default.

Types of Microfinance Institutions in India

Joint Liability Groups: JLGs are informal group of 4-10 people that seek mutually assured loans. Agriculture-related loans are typical. Farmers, rural labourers, and renters are among the debtors in this category. JLG members are **equally responsible for loan repayment**.

Self-Help Groups: An SHG is a group of people in similar socioeconomic situations who come together to help each other. They are self-governed. Members come together (often for a limited time) to form a shared fund for their mutual business requirements. This type of cooperative financing does not necessitate the use of collateral. In addition, borrowing rates are often cheap. Several banks have formed partnerships with SHGs in order to **increase financial inclusion** in the country's rural areas e.g., the NABARD-SHG linkage program, allows numerous self-help groups to borrow money from banks if they can show that their borrowers have made regular payments.

Regional Rural Bank Model: The main purpose of this strategy is to boost the rural economy. They have been created to serve rural areas with basic banking and financial services.

Cooperatives: Rural cooperatives were established at the time of India's Independence. Through the cooperatives, resources of the poor are pooled and financial services are made available.

MFIs, based on their set-up, are regulated as NBFCs by the RBI, or through Companies Act, 2013.

Status of Microfinance

According to NABARD, the SHG-Bank Linkage Programme, covers 14.2 crore families through 119 lakh SHGs (87% of which are women) with savings deposits of INR 47,240.48 crore (March 31, 2022).

NABARD has sanctioned a cumulative grant assistance of INR 255.81 crore to Joint Liability Groups Promoting Institutions (JLGPIs) for promoting 12.77 lakh JLGs (March 31, 2022). There are 188 lakh JLGs of which 54 lakh were promoted during FY 2021-22 (as against 41 lakh promoted in FY 2020-21). During FY 2021-22, loan disbursed was INR 112,772.75 crore.

According to NABARD, Microfinance operations in India are spread across 595 districts of 28 States and 5 Union Territories. As on 31 March 2022, the combined micro credit portfolio of 225 lenders is INR 262,599 crores.

What are the benefits of Microfinance?

Credit to Low-Income Borrowers: Microfinance provides credit to the poor people with low income and assets who face difficulty in accessing finance from formal banking institutions. They help in providing funds to small entrepreneurs in poor regions.

Collateral-Free Loans: No collateral is required for Microfinance loans. This helps persons with little or no assets to access credit.

Financial Inclusion: Microfinance helps those sections of population who are unable to access credit from Banks/formal institutions.

Income Generation: Loans provided by MFIs help small entrepreneurs set-up/expand/scale-up their operations. This enables them to improve their income.

Women Empowerment: Microfinance facilities have proven to be vital in providing financial independence to women and thus empowering them. As noted by NABARD Report, SHG-Bank Linkage Programme has benefited 119 lakh SHGs, 87% of which are women. Access to finance will help increase women-led MSMEs.

Rehabilitation: Microfinance is able to provided access to finance in naxal areas as well. It has thus helped in rehabilitation of the conflict-affected people.

Rural Development: Microfinance boosts economic activities in the rural area and thus aids in rural development. It helps create livelihood opportunities as well.

Encourage Self-Sufficiency and Entrepreneurship: MFIs can provide much-needed funds to an individual for the establishment of a new business that requires small investment and offers long-term profit. Thus they promote entrepreneurship and self-sufficiency among the lower-income population.

What are the challenges associated with Microfinance?

Financial Illiteracy: Financial illiteracy leads to lack of awareness about various MFIs, and the services the offer. This makes the poor people reluctant to approach the MFIs.

Inability to Generate Funds: MFIs face difficulty to raise sufficient funds as they are generally not 'for-profit'. This restricts their access to funds from private equity investors or other market-based avenues of funding.

Heavy Dependence on Banks: MFIs are dependent on borrowing from banks. For most MFI's funding sources are restricted to private banks. Funds available from these banks are typically for short term, generally 2 years. Moreover, Banks tend to disburse loans at the end of financial year to meet the targets. This can create issues for MFIs if there is delay in repayment of loans by borrowers.

Weak Governance: Many MFI's are not willing to convert to a corporate structure; hence there is lack of transparency. This also limits their ability to attract capital. MFI's face challenge to strike a balance between social and business goals.

Interest Rate: Some MFIs charge high interest rates, which the poor find difficult to pay. MFIs are private institutions and do not get any subsidized credit for their lending activities. Thus they tend to charge higher interest rate.

Regional Imbalances: There is unequal geographical growth of MFIs and SHGs in India. About 60% of the total SHG credit linkages in the country are concentrated in the Southern States. In poorer regions like in Jharkhand, Bihar etc. where the proportion of the poor is higher, the coverage is comparatively lower. This could be attributed to lack of State government support, NGO concentration and public awareness

What steps have been taken to promote Microfinance in India?

Government Programmes: **(a) SHG-Bank Linkage Programme** (SHG-BLP): This channel was initiated by NABARD in 1992. This model incentivises women to unite together to form a group of 10-15 members. Women belonging to financial backward classes contribute by giving their individual savings to the group at regular intervals. Loans are provided to the members of the group by their contributions; **(b) Micro Enterprise Development Programme (MEDPs)**: The programme enables SHG members to be up-skilled to take up income generating livelihood activities. The main objective of the programme is to **enhance the capacities of participants** through appropriate skill up-gradation in existing or new livelihood activities in farm or non-farm activities. It helps enrich knowledge of participants on enterprise management, business dynamics and rural markets; **(c) Livelihood and Enterprise Development Programme (LEDP)**: It was initiated on a pilot basis in 2015 with a view to **create sustainable livelihoods** among matured SHG members and to obtain optimum benefit from skill up-gradation. LEDP is a holistic intervention mechanism conceived to take care of the entire ecosystem required for livelihood promotion in both farm and off-farm activities. It is implemented through cluster-based approach within contiguous villages. It has a provision for intensive training for skill building, refresher training, backward-forward linkages, handholding and escort support for credit linkage; **(d) Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE)**: It implements the credit guarantee scheme for Micro and Small Enterprises (MSEs). It has added MFIs to the list of member lending institutions (MLIs).

Financial Support by NABARD and SIDBI: **(a)** NABARD supports MFIs in their formative years (as NGO-MFIs) with grant support and **Revolving Fund Assistance** (RFA). NABARD had also created the **Micro Finance Development and Equity Fund** (MFDEF) in 2006 to help a number of MFIs with quasi-equity and subordinated debt instruments; **(b)** SIDBI has aided the growth of MFIs through its **SIDBI Foundation for Micro Credit** (SFMC). The **India Microfinance Equity Fund** (IMEF) of SIDBI has also supported MFIs, especially the medium and smaller ones with equity and quasi-equity. Since IMEF had similar function as MFDEF, it (MFDEF) was withdrawn in 2013; **(c) MUDRA**: Support to Microfinance sector was scaled up by Government of India by setting up the **Micro Units Development & Refinance Agency Ltd (MUDRA)** in 2015. It is an NBFC that focuses on micro-enterprises, extending **financial support to MFIs** for on-lending to individuals/groups/JLGs/SHGs.

Regulatory Initiatives: **(a) Y H Malegam Committee**: It was set-up in the wake of AP Microfinance crisis in 2010. It was constituted by the RBI to study issues and concerns in the Microfinance sector; **(b) Introduction of Regulations for NBFC-MFIs**: Based on the recommendations of the Malegam Committee, RBI introduced a comprehensive regulatory framework for NBFC-MFIs in December 2011. The regulations prescribed **eligibility criteria for Microfinance loans** linked to core features of Microfinance i.e., lending of small amounts to borrowers belonging to low-income groups, without collateral, and with flexible repayment schedules; **(c) Regulatory Framework for Microfinance Loans**: RBI has implemented Regulatory Framework for Microfinance Loans, effective from April 1, 2022, to update Microfinance regulatory policy. This will create regulatory parity between Regulated Entities (RE) that provide Microfinance, harmonise regulations to protect customers from over-indebtedness, and define Microfinance. Microfinance loans are now collateral-free loans for households having annual income up to INR 3 lakh.

What more can be done?

Regulation: The Microfinance sector has expanded a lot in the last 2 decades. Hence there is a need for a comprehensive regulatory framework for the sector, instead of piecemeal and reactive regulatory initiatives.

Interest Rate Transparency: MFIs are employing different patterns of charging interest rates and a few are also levying additional charges. MFIs should transparently inform the borrowers regarding the interest rate charged on the loans.

Encourage Microfinance Penetration: Encouraging MFIs for opening new branches in areas of low Microfinance penetration by providing financial assistance will increase the outreach of the Microfinance. This will increase **rural penetration** of Microfinance.

Expand Product Range: MFIs should provide complete range of products including credit, savings, remittance, financial advice and non-financial services like training and support. This will enable the people from underserved access all financial services.

Use of Technology: MFIs should use new technologies, IT tools, and applications to reduce operational costs.

Different Sources for Raising Funds: In the absence of sufficient finances, the reach of MFIs becomes limited. MFIs should look for other sources for funding their loan portfolio e.g., by converting to for-profit company (NBFC).

Conclusion

The Microfinance sector has played an important role in ensuring inclusive and balanced development. Yet the benefits of Microfinance have been limited to some regions. Moreover, the sector faces issue of rising bad loans along with several operational challenges for the MFIs. There is a need for comprehensive regulation of the sector to make it more inclusive and sustainable.

Syllabus: GS III, Indian Economy.

Source: **Financial Express**, **NABARD**, **RBI**,

Disinvestment in India: Trends and Challenges – Explained, pointwise

Introduction

In the Union Budget 2023-24, the Government has set a target of INR 51,000 crore for Disinvestment. This is the lowest target set by the Government in the last 7 years. The Government has not met the disinvestment target for 2022-23. So far, the Government has realised INR 31,106 crore to date, of which, INR 20,516 crore (~66% of the budgeted estimate) came from the IPO of 3.5% of its shares in the Life Insurance Corporation (LIC). Since 2010-11, the Government has been able to realize the budget target of Disinvestment only twice, in 2017-18 and 2018-19. While some experts have commended the Disinvestment policy of the Government, some other have criticized it, both for its policy approach as well as execution.

What is Disinvestment?

Disinvestment, or divestment, refers to sale of assets or a subsidiary by the Government like the sale of Public Sector Enterprise/Unit (PSE/PSU) by Union or State Government. The sale of Enterprise can be full (i.e., 100% of Government ownership is sold) or partial. Accordingly the disinvestment can be classified as minority disinvestment, majority disinvestment or complete privatisation.

In **minority disinvestment**, the **Government retains a majority in the company**, typically greater than 51%, thus ensuring management control. In the case of **majority divestment**, the government hands over control to the acquiring entity but **retains some stake**. In complete privatisation, 100% control of the company is passed on to the buyer.

Methods of Disinvestment

Initial Public Offering (IPO): It is offer of shares by an **unlisted PSE** or the Government out of its shareholding or a combination of both to the public for subscription **for the first time**.

Further Public Offering (FPO): It is offer of shares by a **listed PSE** or the Government out of its shareholding or a combination of both to the public for subscription.

Offer for Sale(OFS) of Shares by Promoters through Stock Exchange: This method allows auction of shares on the platform provided by the Stock Exchange. This method has been extensively used by the Government since 2012.

Strategic Sale: It refers to **sale of substantial portion of the Government share holding** of a PSE, up to 50%, or such higher percentage as the competent authority may determine, along with transfer of management control.

Institutional Placement Program (IPP): Under IPP, only **Qualified Institutional buyers** can participate in the offering. Qualified Institutional Buyers are those institutional investors who are perceived to possess expertise to evaluate and invest in the capital markets.

CPSE Exchange Traded Fund (ETF): Disinvestment through ETF route allows **simultaneous sale of Government's stake** in various PSEs across diverse sectors through single offering. It provides a mechanism for the Government to monetize its shareholding in those CPSEs which form part of the ETF basket.

What are the reasons for undertaking Disinvestment?

Government Revenue: With disinvestment the Government can earn revenue which can be used for meeting expenditure obligations including on welfare measures. Proceeds from disinvestment of assets are used to finance the budget deficit, invest in the economy and various development/social sector programmes, and pay the national debt.

Improve Competition: The privatisation of State-owned companies paves the way for the entry of increasing number of businesses into the industry. This **boosts market competitiveness** and ultimately results in an improvement in market efficiency. Additionally, it assists businesses that are run by the public sector in modernising their technology in order to boost their level of competitiveness.

Reduce Government's Role: According to economy and policy experts, the Government should be involved only in strategic sectors. For rest of the sectors, the Government should let the private sector efficiencies take control (subject to effective regulation). Government should focus more on the welfare sector.

Efficiency: It is commonly believed that interference by the Government in the PSUs impact their independence and functioning e.g., in PSEs, new investments can driven by political factors rather than pure economic logic. Similarly PSEs may employ more workers than actually needed. Private sector firms tend to be more competitive. Hence, reduction in Government control enhances overall economic efficiency. So it makes sense to privatize inefficient public sector enterprises.

Valuation: Dilution of Government shareholding, and giving the shares for retail trading opens up the market. It increases the liquidity of the shares and helps get better/realistic valuation.

What has been the trend of disinvestment in India?
The process of disinvestment began in 1991, post the economic reforms. The **Industrial Policy Statement of 1991** stated that the Government would divest a portion of its holdings in selected PSEs, but it did not specify the extent of the disinvestment.

Between **1991-1998**, the Government could realize only INR 17,557 crore (equivalent to ~INR 90,000 crore in 2022 prices). The pressure of coalition politics limited the political will to push for disinvestment.

In 1996, the Government established the Public Sector **Disinvestment Commission** (under G. V. Ramakrishna) for a 3-year term with the goal of developing an **overall long-term disinvestment programme** (like extent of disinvestment, mode of disinvestment) for PSEs.

Between **1999 and 2004**, the Government implemented some of the recommendations of the Disinvestment Commission like reducing the government's shareholding in selected PSEs to 26% in order to facilitate ownership changes. In 1999, the Government stated its policy would be to

strengthen strategic PSEs and **privatise non-strategic PSEs** through disinvestment. In December 1999, the Department of Disinvestment was established.

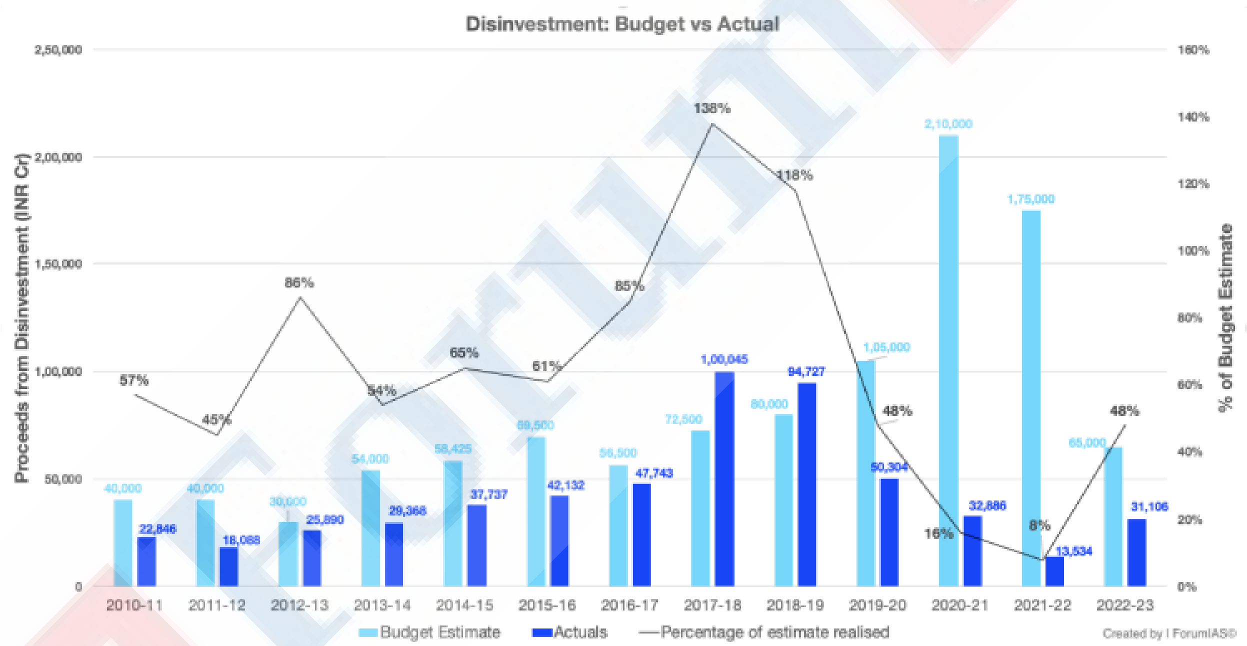
During this period (1999-2004), the Government realized **INR 27,599 crore** (~ INR 93,300 crore in 2022 prices) in just five years (1999-2004).

Between **2004-09**, the pace of disinvestment fell, again due to pressure of coalition politics. In this period, **INR 11,591** crore were earned through disinvestment. The pace picked between 2009-14, with proceeds rising to **INR 1.2 lakh crore**.

The revenues through disinvestment have risen rapidly since 2014. Total INR 4.48 lakh crore have been earned. This represents **~70% of the earning through disinvestment since 1991**.

As part of the May 2020 *Atmanirbhar Bharat* package to stabilise the lockdown-hit economy, the Government announced a Public Sector Enterprise Policy to encourage private sector participation and reduce government involvement in business. In the Union Budget 2020-21, the Government announced a new policy for strategic disinvestment in PSEs.

The government also launched the **National Monetisation Pipeline** (NMP) to generate new revenue streams by unlocking the value of previously unutilised and underutilised public assets.



What is the latest policy on Disinvestment?

The disinvestment policy will cover existing Central Public Sector Enterprises (CPSEs), Public Sector Banks, and Public Sector Insurance Companies.

The government has classified the public sector under 2 categories: **Strategic Sector** and **Non-strategic Sector**.

In Non-strategic sectors, the Government will exit from all businesses. It will keep only a '**bare minimum**' presence in four broad strategic sectors, i.e. **(a)** Atomic energy, Space and Defence; **(b)** Transport and Telecommunications; **(c)** Power, Petroleum, Coal, and other minerals; **(d)** Banking, Insurance, and financial services.

The government will incentivize States for disinvestment of their Public Sector companies.

The new policy is significant as it goes beyond the past case-by-case approach and lays down a rationale for deciding the future ownership pattern of 439 CPSEs, including their subsidiaries. For instance, it is now clear that 151 public sector firms in non-strategic sectors (including 83 holding companies and 68 subsidiaries) will either be closed or sold. The policy also brings **public sector banks** and **insurance entities** into the ambit of disinvestment for the first time.

The Government will also monetize the surplus land with Government Ministries and Departments and PSEs. The Cabinet has already approved the creation of **National Land Monetisation Corporation**.

What are the challenges and concerns related to Disinvestment?

First, the Sale of profit-making and dividend-paying PSUs would result in the **loss of regular income** to the Government. Disinvestment has become just a resource raising exercise by the government. There is **no emphasize on reforming the PSUs**.

Second, the valuation of shares has been affected by the Government's decision not to reduce government holdings below 51%. With the continuing majority ownership of the Government, the public enterprises would continue to operate with the earlier culture of inefficiency.

Third, Government is not willing to give up its control even after strategic disinvestment. In the Budget (2019-20) Speech the Union Finance Minister stated that government will change the policy of 'directly' holding 51% or above in a CPSU to one whereby **Government's total holding, 'direct' plus 'indirect', is maintained at 51%**. It means government will still exercise its control over PSUs. This will **reduce the interests of buyers**.

Fourth, The process of disinvestment is suffering from **bureaucratic control**. Almost all processes starting from conception to the selection of bidders are suffering due to it. Moreover, bureaucrats are reluctant to take timely decisions in the **fear of prosecution** after retirement.

Fifth, Strategic Disinvestment of **Oil PSUs** is seen by some experts as a **threat to National Security**. Oil is a strategic natural resource and possible ownership in the foreign hand is not consistent with strategic goals.

Sixth, Loss-making units don't attract investment. It depends upon the perception of investors about the PSU being offered. This perception becomes more important in the case of strategic sales, where the amount of investment is very high.

Seventh, Complete Privatization may result in public monopolies becoming **private monopolies**, Private monopoly has a tendency to exploit their position to **increase costs** of various services and earn higher profits.

Eighth, using funds from disinvestment to bridge the fiscal deficit is an unhealthy and short-term practice. This is not sustainable in the long term. Government should focus on increasing its revenue from more reliable resources and cut down **Fiscal Deficit**.

What are the NITI Aayog's recommendations on Disinvestment?

First, The Aayog's disinvestment proposals should go to directly to the Cabinet Committee on Economic Affairs (CCEA) instead of the respective Ministry. This would shorten the process.

Second, Government should consider appointment of Advisors and Asset valuers to speed up the process of disinvestment.

Third, an independent professional agency should be set-up to speed-up the Asset Monetisation Programme.

What should be the approach going ahead?

First, the Government should increase the **operational autonomy** of PSEs. It can be supplemented by **strong governance measures** like listing on stock exchanges. It will increase the transparency in their performance.

Second, the government must also try to provide the bidders with a **fair valuation** of the Government entities. It will boost their confidence in the disinvestment process.

Third, the Government should also reduce its involvement in the management and day-to-day operations of the PSEs. The Government should reform their boards and reorganize the structures. This will attract more buyers and get better valuations.

Conclusion

Disinvestment has several benefits. It can help enhance competition in various sectors and improve efficiencies. It also helps raise revenue for the Government, which can be spent on welfare measures. However, the Government should take care to ensure its presence in certain strategic sectors like banking, energy etc. It will ensure the social obligations and strategic interests intricately linked with these sectors are secured.

Syllabus: GS III, Indian Economy and Issues related to mobilization of resources.

Source: The Hindu, The Hindu BusinessLine, Economic Times, PRS, DIPAM

Gender Budgeting: Status, Benefits and Challenges – Explained, pointwise

Introduction

The Union Budget 2023-24 has been presented in the Parliament. In 2005, the Government had started releasing a Gender Budget along with the Union budget. Gender Budgeting is a strategy to ensure that promises on gender equality show up in public budget allocations as well. However, achieving gender equality through Gender Budgeting has remained a challenge. The share of Gender Budget (in total Government Budget) has remained low despite growing at an annualized rate 13% since inception. With some reforms in the implementation, the Government can improve the efficacy of Gender Budgeting in terms of outcomes.

What is the meaning of Gender Budgeting (GB)?

Gender Budgeting is the **use of fiscal policies** and public financial management tools to **promote gender equality**. It is an exercise that applies a '**Gendered-lens**' to the allocation and tracking of public funds. This is done in order to ensure that governments are acutely aware of the impact of their choices on gender outcomes. Gender Budgeting is not limited to funding explicit gender equality initiatives. It also entails analyzing fiscal policies and budgetary decisions to **understand their impact on gender equality** and using this information to **design and implement more effective gender policies**. It translates the gender commitments into fiscal commitments.

The 'Gender Budgeting Handbook, 2015' released by the Ministry of Women and Child Development notes that Gender Budgeting is a tool for **gender mainstreaming**. It observes that, "*Gender Budgeting is concerned with gender-sensitive formulation of legislation, policies, plans,* *programmes and schemes; allocation and collection of resources; implementation and execution; monitoring, review, audit and impact assessment of programmes and schemes; and follow-up corrective action to address gender disparities.*" It is not only about the Budget and it is not just a one-time activity. It is a **continuous process** that must be applied to all levels and stages of the policy process.

Evolution of Gender Budgeting: It was first introduced in 1984 in Australia to evaluate the impact of the national budget on women and girls. The approach was adopted by other countries including Canada, South Africa and Philippines etc. In 1995, the **United Nation's Beijing Platform for Action** called for **integrating a gender perspective into government budget processes**.

In 2015, the UN's **Sustainable Development Goals** (SDGs) called for adequate resources and tools to track **budget allocations for gender equality** (SDG indicator 5.c.1). The **Addis Ababa Action Agenda for Development** (2015) recognized the importance of tracking resource allocations for gender equality and strengthening capacity for Gender Budgeting.

In 2020, **G20-Women**, an official engagement group to the G20, called for greater investment in GB to ensure that fiscal policies advance gender equality in the short and long-term recovery from the COVID-19 pandemic.

What is the status of Gender Budgeting in India ?

The Government of India had adopted Gender Budgeting in 2005-06.

In India, Gender Budgeting comprises two parts: **(a)** Part A reflects **Women-Specific Schemes** i.e., those which have 100% allocation for women; **(b)** Part B reflects **Pro-Women Schemes** i.e., those where at least 30% of the allocation is for women.

The gender budgeting framework has helped the gender-neutral ministries to design new programs for women.

Gender Budgeting Cells (GBC): The Government has mandated the establishment of Gender Budgeting Cells in all Ministries and Departments as an institutional mechanism to implement Gender Budgeting. The GBCs conduct gender-based impact analyses, beneficiary needs assessments, and beneficiary incidence analyses and determine the room for re-prioritizing public expenditures and better implementation.

Role of The Ministry of Women and Child Development in Gender Budgeting: The Ministry has made consistent efforts to support the institutionalization of GB at the State/UT level. The Ministry also provides financial support to Government training institutions for **capacity building of Government officials** to enhance Gender Budgeting in States/UTs.

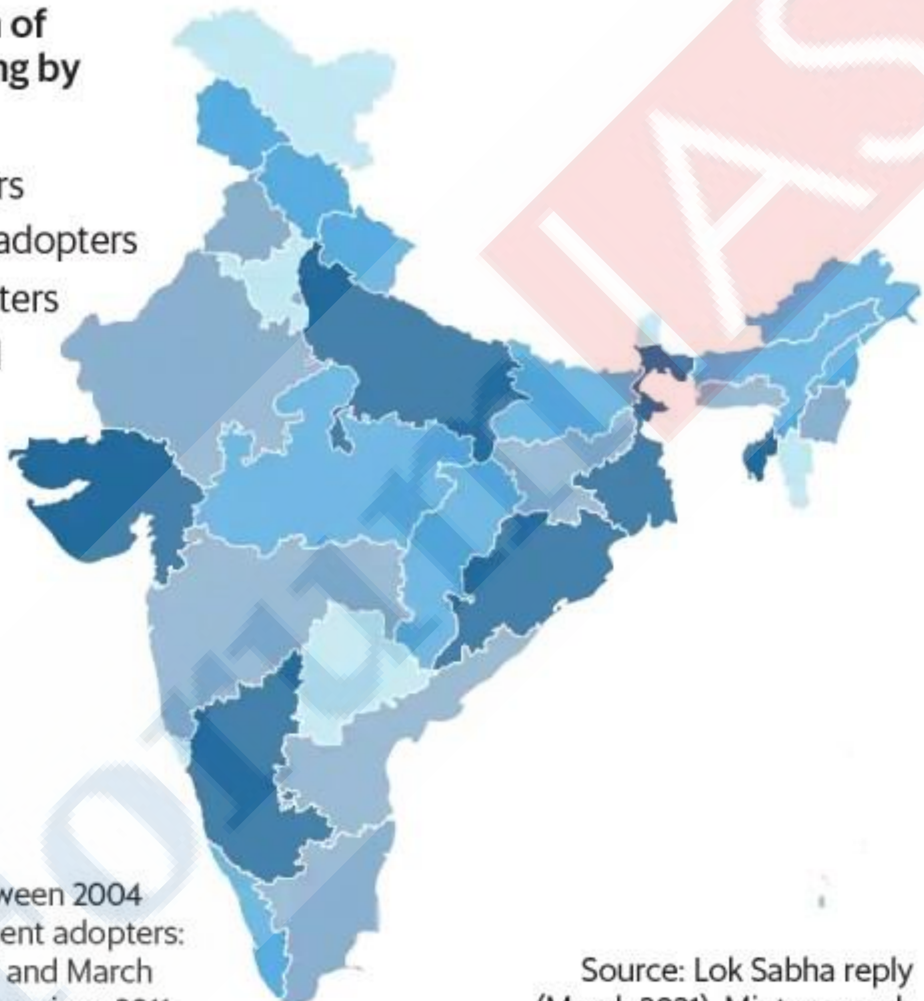
Role of States/UTs in Gender Budgeting: In a reply to a question in the Lok Sabha (March 2021), the Government responded that 27 States/UTs have adopted Gender Budgeting and have taken various steps to address gender gaps and advance gender equality. Goa, Haryana, Meghalaya, Mizoram, Telangana, Chandigarh, Ladakh, Puducherry haven't adopted GB yet.

Matching steps

Complementing the central goverment's initiative, most states and Union territories have adopted gender budgeting initiatives. A handful of them are yet to follow suit.

Implementation of gender budgeting by states and UTs

- Early adopters
- Subsequent adopters
- Recent adopters
- Not adopted



Early adopters: between 2004 and 2007); subsequent adopters: between April 2007 and March 2011; recent adopters: since 2011.

Source: Lok Sabha reply (March 2021), Mint research

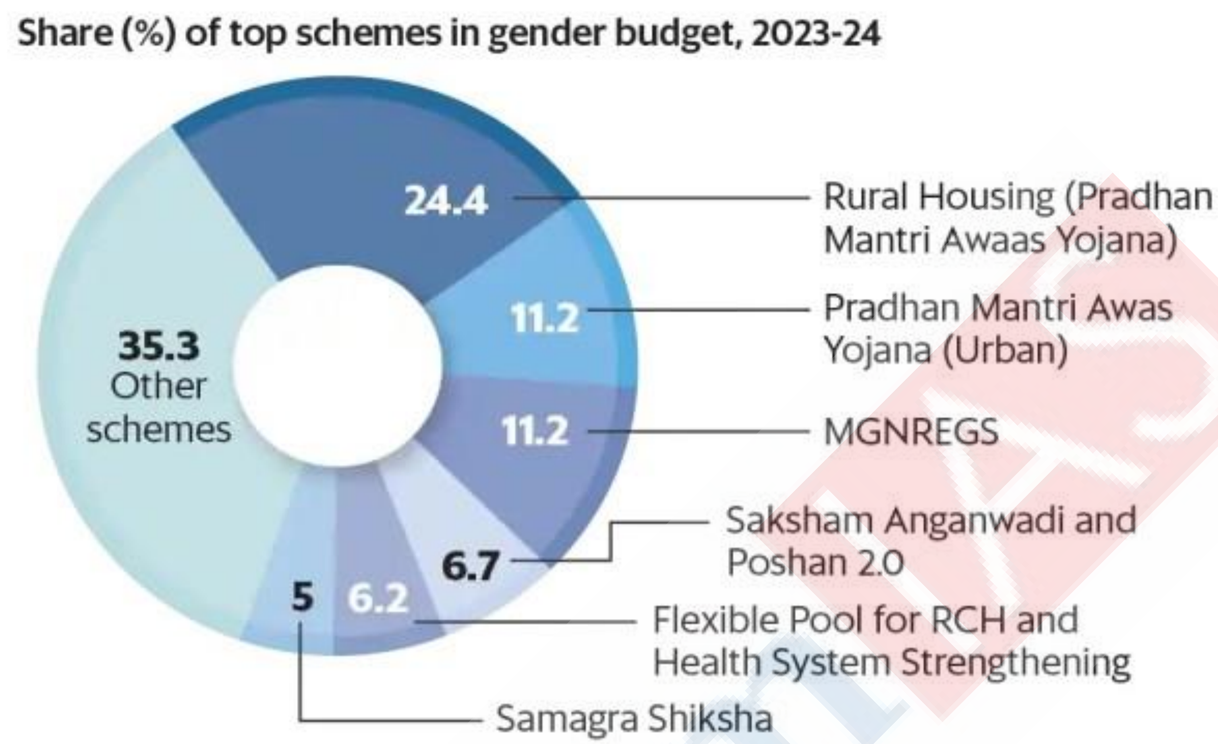
Early Adopters	Subsequent Adopters	Recent Adopters
Odisha (2004-05) Tripura (2005-06) Uttar Pradesh (2005) Karnataka (2006-07) Gujarat (2006) Lakshadweep (2006-07) West Bengal(2005-06)	Madhya Pradesh (2007-08) Jammu &Kashmir (2007-08) Arunachal Pradesh (2007-08) Chhattisgarh (2007-08) Uttarakhand (2007-08) Himachal Pradesh (2008) Assam (2008-09) Bihar (2008-09) Kerala (2010-11) Nagaland (2009)	Rajasthan (2011) Dadra and Nagar Haveli (2011-12) Andaman & Nicobar Islands (2012) Punjab (2012) Maharashtra (2013) NCT of Delhi (2013-14) Jharkhand (2015-16) Andhra Pradesh (2017) Tamil Nadu (2018-19) Manipur (2020)

Source: Mint, Lok Sabha

These steps take by States include identification of a nodal Department for Gender Budgeting, constitution of Gender Budgeting Cells, formulation of State Women/Girls Policy, creation of Gender Data Bank and adding Gender Budget Statement in the State Budget. Additionally, 21 States/UTs have established designated State Nodal Centres for sustained capacity building efforts on GB.

Budgetary Allocations: India's Gender Budget has allocated INR 2.23 lakh crore in the Union Budget 2023-24. This is ~30% higher than Budgetary allocation in 2022-23 (INR 1.71 lakh crore, Budget estimate) but only ~2% than actual allocation (INR 2.18 lakh crore, Revised Estimate).

Part A of the Gender Budget has allotted over INR 88,000 crore in FY2023-24. It is dominated by the *Pradhan Mantri Awas Yojana* (both Urban and Rural housing). These two schemes attracted 90% of the total funding for Part A of the Gender Budget. Part B has received INR 1.35 lakh crore. Part B comprise several schemes pertaining to rural development, health, education and women empowerment.



Souce: Mint

Important women-centric schemes include: **(a)** Safe City Project, an initiative under the Nirbhaya Fund scheme for ensuring safety of women and children; **(b) SAMBAL**, a sub-scheme comprising of old schemes like One Stop Centre, Women Helpline and *Beti Bachao Beti Padhao*; **(c) SAMARTHYA**, includes women empowerment programmes like *Pradhan Mantri Matru Vandana Yojana* and *Swadhar Greh*. SAMBAL and SAMARTHYA are part of the larger umbrella scheme '**Mission *Shakti***', an integrated women empowerment programme.

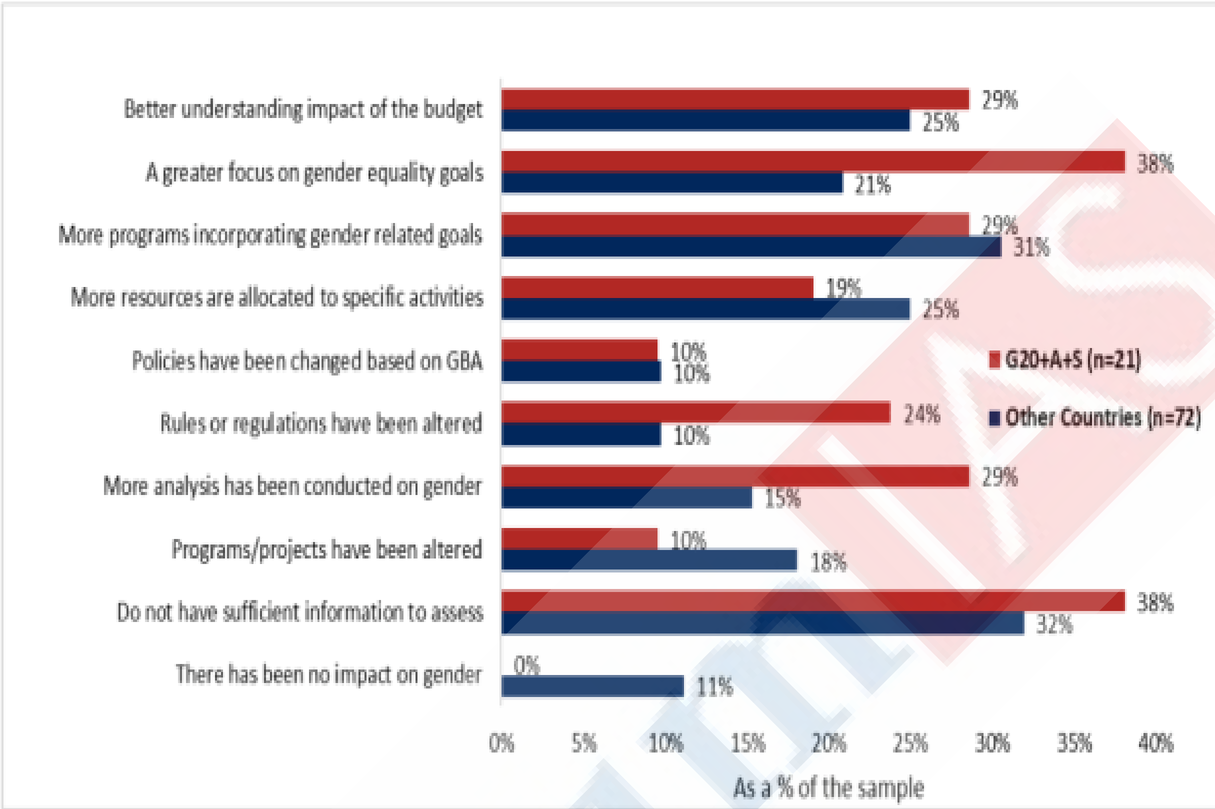
What are the benefits of Gender Budgeting?

Understanding Impact of Budget: Gender Budgeting approach leads to better informed policy choices. This approach makes the policy makers more aware of the potential impact of policy decisions on gender.

Better Utilisation of Resources: It can support efforts to not only design, but re-design fiscal policies, adjusting resources to better address persistent gender gaps.

Achievement of Gender Equality Goals: It leads to greater focus on achieving gender equality goals. A focused approach leads to better results. An IMF Working paper on the impact of Gender Budgeting in G20 countries notes that Gender Budgeting leads to more programmes incorporating gender related goals. Every country analysed in the research paper had some positive outcome in terms of gender equality.

Impact of Gender Budgeting on Gender Equality

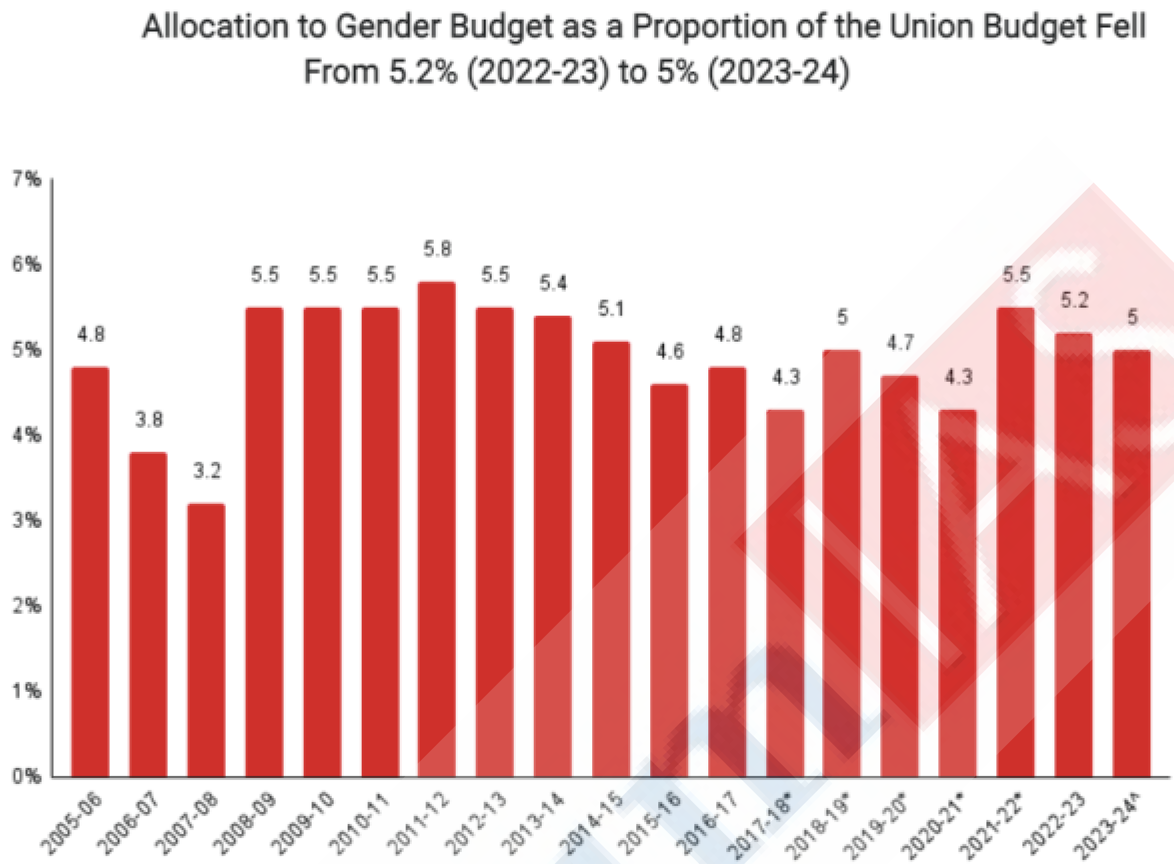


Source: IMF

Wider Societal Outcomes: There are many other factors that impact the achievement of gender equality, including societal attitudes and behaviours. Gender Budgeting practices can make a difference in the way governments consider policy in respect to gender and lead to more conscious and better-informed decision making.

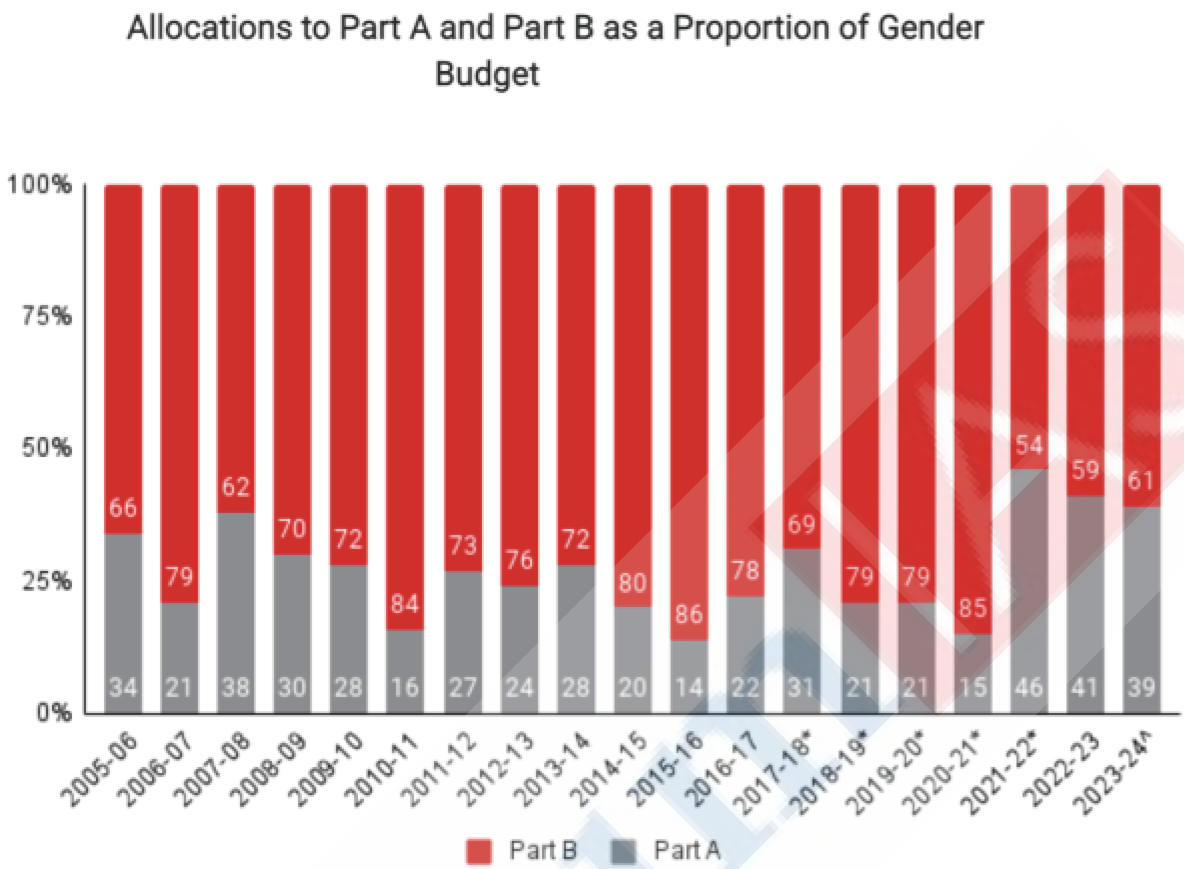
What are the challenges in Gender Budgeting?

Low Allocation: Despite increase in allocation in absolute terms, the share of Gender Budget in overall Union Budget has always remained less than 6%. The highest allocation was in 2011-12 at 5.8%.



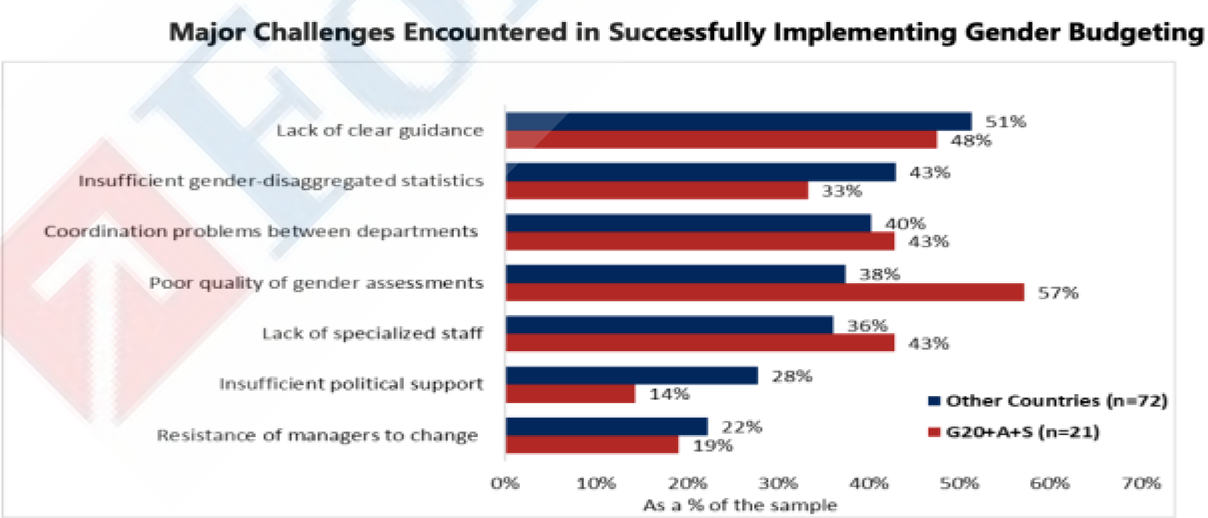
Source: CPR

Skewed Allocation: The Gender Budget consists of two parts based on fund allocation. Part A with 100% allocation for women has lower share in the Gender Budget. The highest share for Part A was 46% in FY2021-22. Since 2005-06, the share of Part A was less than 30% of the overall Gender Budget for 12 years.



Source: CPR

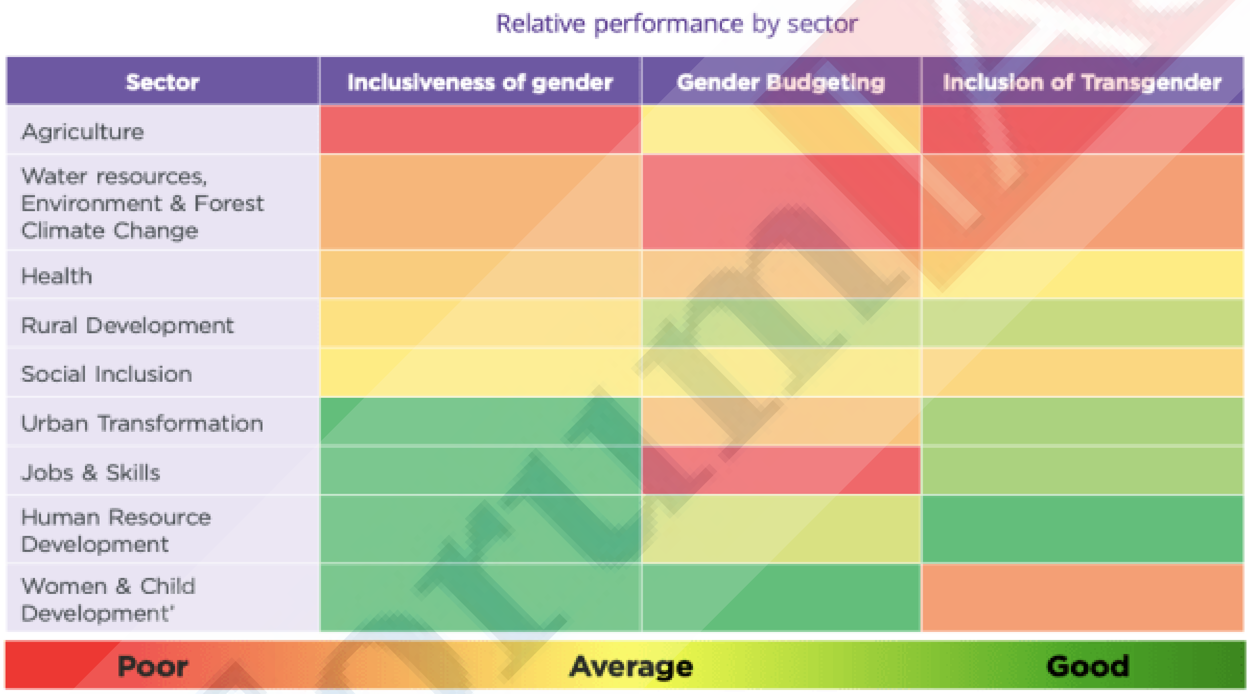
Technical Challenges: Implementation of Gender Budgeting faces several challenges like lack of guidance, coordination, expertise among personnel, and low quality of gender impact assessments (GIAs).



Source: IMF

Absence of Gender Disaggregated Data: Lack of gender disaggregated data make it difficult to formulate effective policies. Additionally, it limits the ability to accurately measure the effectiveness of the Gender Budgeting policies and initiatives. IMF paper notes that Governments often point out to their inability to track gender-sensitive policies over their implementation cycle, due to lack of budget classifications or failure to incorporate gender classifiers in the financial management information systems (FMIS).

Skewed Implementation: Many sectors/schemes that can have impact on women, do not practice Gender Budgeting. NITI Aayog paper on Gender Mainstreaming (June 2022) has noted that only 62 out of 119 centrally-sponsored schemes are practising GB. The paper noted that the record of Ministers associated with Environment and Climate Change, Urban Transformation, Skill etc. have done poorly.



Sectoral Performance on Gender Mainstreaming, Source: NITI Aayog

Under-Reporting: The Gender Budget does not take into account some of the major schemes that benefit women. For instance, the ***Jal Jeevan* Mission** (JJM) aims to provide household tap connections to all rural households by 2024. Tap water can particularly improve women's quality of life because it is mostly women and girls who gather water in households that do not have regular water access. Yet, none of the allocations in the JJM have been reported in the Gender Budget.

Moreover, the schemes that allocate less than 30% funds for women, are not covered in Part B of the Gender Budget.

In addition, there is lack of clarity on the way schemes allocate at least 30% of their funds for women. For instance, the ***Pradhan Mantri Awaas Yojana – Gramin*** (PMAY-G) accounted for 24% of the Gender Budget in 2023-24 and was placed in Part A of the GB because the scheme encourages houses to be owned by women and thereby might benefit women. On the other hand, only 27% of the funds allocated under the Mahatma Gandhi National Rural Employment

Guarantee Scheme (MGNREGS) accounted for Part B of the GB, despite women being 55% of MGNREGS workers

Lack of Accountability: There is no mandate to have a minimum allocation with respect to Gender Budget. In the absence of any accountability mechanisms regarding Gender Budgeting, monitoring and implementation continue to be inadequate.

What can be done to make Gender Budgeting more effective?

First, NITI Aayog has recommended that a **Gender Budgeting Act** can mainstream gender-based budgeting across all Ministries and States/UTs. The Act can also mandate all data collecting institutions to analyse and publish gender-disaggregated statistics. This can make the process of GB more scientific.

Second, the NITI Aayog has also recommended that the Ministry of Women & Child Development (MWCD) should encourage State Governments to **increase budgetary allocation towards women** and child development, protection and welfare schemes to ensure improved fund availability and utilisation of schemes. It has also emphasised on the need of finalising the National Policy for Women with revision in 2016 Draft Policy.

Third, there is a need to have **uniform guidelines** regarding Gender Budgeting. Evidence from the IMF survey shows that without guidelines or a common methodology for impact assessments, it is difficult for line Ministries to implement a common approach to GB analysis.

Fourth, the **tools to monitor implementation and collect data** must be improved. Better data can help in deeper analysis that can help in accurate measurement of outcomes and designing targeted initiatives for gender equality.

Fifth, the IMF recommends that fiscal policies should focus on areas where gender gaps persist. **Gender Impact Assessments** (GIAs) should be undertaken to help understand the gender impact of current and alternative policies. The analysis can be utilized to better redesign the policy interventions.

Conclusion

Gender Budgeting is one of the most potent tool for gender mainstreaming and achieving gender equality. India has been one of the early adopters of Gender Budgeting. Yet the process faces several challenges. The next step should be to plug these gaps and make the process more effective. As India enters the phase of *Amrit Kaal*, the Prime Minister has highlighted the importance of the role of *Nari Shakti* in achieving the goal of developed economy by 2047. This should be actioned through more responsive and effective Gender Budgeting.

Syllabus: GS I, Social empowerment; GS II, Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; GS III, Government Budgeting.

Source: Mint, Centre for Policy Research, IMF, NITI Aayog

Biogas: Advantages and Challenges – Explained, pointwise

Introduction

The **Union Budget 2023-24** has given a new push for clean energy. Apart from providing INR 35,000 crore for priority capital investments towards energy transition and net zero objectives, the Budget has earmarked INR 10,000 crore for establishing 500 new '**Waste to Wealth**' **plants** under **GOBARdhan** (Galvanizing Organic Bio-Agro Resources Dhan) scheme for promoting **circular economy**. Of the 500 new plants announced, 200 will be **Compressed Biogas Plants** (CBG), including 75 in cities and the remaining 300 will be community or cluster-based plants. Biogas is an environment friendly solution to ensure energy security as well as a small step towards reducing dependence on fossil fuels.

What is Bio-gas and how is it produced?

Biogas is a mixture of Methane (CH_4), Carbon-dioxide (CO_2)and small quantities of other gases. It is produced by **anaerobic fermentation** of **organic matter** in an **oxygen-free environment**. The precise composition of biogas depends on the type of feedstock and the production method used. The organic matter to produce biogas can be **biodegradable waste** such as agricultural waste, animal waste like dung and segregated organic fraction of municipal solid waste.

Generally, the fermentation goes through **four** stages to turn the organic material into biogas. In the first step (**Hydrolysis**), bacteria break down carbohydrates. In the second stage (**Acidogenesis**), acidogenic bacteria turn sugars and amino acids into carbon dioxide, organic acids, hydrogen, and ammonia. In the third stage (**Acetogenesis**), these organic acids are transformed into acetates. In the final stage (**Methogenesis**), methanogens break the components (acetates) to obtain methane and carbon dioxide.

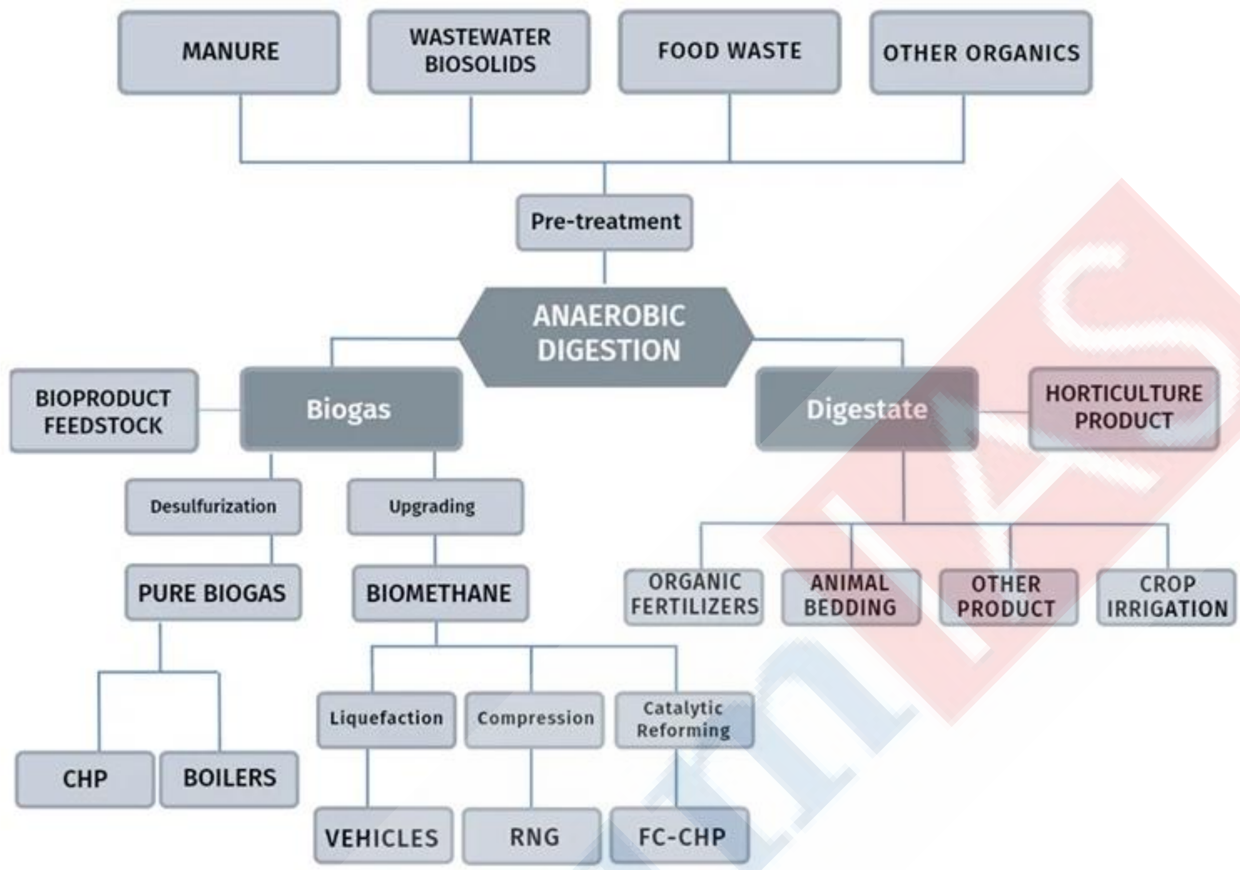
Anaerobic digestion yields a variety of products in three different forms. The **slurry** obtained from the process is used to extract liquid fertiliser and the fermented organic manure (FOM) in solid form.

The solid part of products is used as soil conditioner and fertiliser.

The gaseous products are known as Biogas. It contains about 55-65% Methane, 35-44% of carbon dioxide and traces of other gases such as hydrogen sulphide, ammonia and nitrogen.

Compressed Biogas (CBG): Biogas can be purified and upgraded up to 98% of purity to make it suitable to be used as a green fuel for transportation or filling of cylinders. The process relies on a high pressure of ~250 bar and hence is called Compressed Biogas (CBG).

Bio-Methane: It is also known as 'renewable natural gas'. It is a near-pure source of methane produced either by 'upgrading' biogas or through the gasification of solid biomass followed by Methanation. Upgradation refers to a process that removes any CO_2 and other contaminants present in the biogas.



What are the various initiatives taken by the Government with respect to Biogas?

First, Under the **Sustainable Alternative to More Affordable Transportation** (SATAT) programme (launched 2018), the Government of India has been encouraging private businesses to establish Compressed Biogas (CBG) plants and provide CBG to oil marketing companies so that it can be sold as an automotive and industrial fuel.

Second, **Galvanizing Organic Bio-Agro Resources (GOBAR)-Dhan** was launched by the Government of India in April 2018 as a part of the biodegradable waste management component under the Swachh Bharat Mission-Gramin.

Third, the Waste to Energy Division of the Ministry of New and Renewable Energy's (MNRE) has notified a five-year-long **National Bioenergy Programme** (2021-22 to 2025-26).

Fourth, the Government of India and NITI Aayog have devised road maps to speed up the country's transition to environmentally friendly fuels and to boost the use of liquefied natural gas (LNG), hydrogen, and methanol.

What are the advantages of Biogas?

Environment Friendly: It is a renewable and **environmentally friendly** energy source. **Less energy is required to produce Biogas** compared to extracting natural gas.

Moreover, **Methane has higher greenhouse/warming potential than carbon-dioxide**. Hence, capturing and combusting methane to produce carbon-dioxide reduces the overall global warming, compared to a situation where methane is allowed to escape to the atmosphere.

Energy Diversification: Biogas production reduces reliance on fossil fuels such as oil and coal.

Renewable: The raw materials used in biogas production are renewable, as trees and crops will continue to grow. Manure, food scraps, and crop residue are always available raw materials, making it a highly sustainable option.

Reduce Soil and Water Pollution: Producing biogas from waste reduces dumping of wastes in landfills. Overflowing landfills not only emit foul odours, but also allow toxic liquids to enter underground water sources. As a result, another advantage of biogas is that it may improve water quality. Furthermore, anaerobic digestion deactivates pathogens and parasites, making it effective in **reducing the prevalence of waterborne diseases**.

Similarly, waste collection and management improve dramatically in areas with biogas plants. This, in turn, leads to improvements in the environment, sanitation, and hygiene.

Organic Fertilizers: The byproduct of the biogas generation process is enriched organic digestate, which is an excellent supplement to or **replacement for chemical fertilisers**. The fertiliser discharge from the digester can accelerate plant growth and resistance to diseases, whereas commercial fertilisers contain chemicals that are toxic and can cause food poisoning, besides other harmful effects.

Promotes Circular Economy: It is a simple and low-cost technology that promotes a circular economy. The technology used to generate biogas is relatively inexpensive. It is simple to set up and requires little investment when used on a small scale. Small biodigesters can be used at home, utilising kitchen waste and animal manure. After a while, a household system pays for itself, and the materials used in generation are completely free.

Biogas can also be compressed to the quality of natural gas and used to power automobiles in large plants. Such plants require little capital investment and **create green jobs**.

Healthy Alternative for Cooking Fuel: Biogas generators relieve women and children of the laborious task of gathering firewood. As a result, more time is available for other productive activities. More importantly, cooking on a biogas rather than an open fire keeps the family safe from smoke in the This aids in the prevention of deadly respiratory diseases.

Achieving SDGs: According to the Linköping University's Biogas Research Center report, Biogas contributes to all 17 of the United Nation's Sustainable Development Goals.

What are the challenges in Production and Use of Biogas?

Lack of Technological Advances: According to some experts, the systems used to produce biogas are inefficient. There is **lack of a new technology that can simplify the process**, make it accessible, and reduce the cost of doing so. This means that large-scale production to meet the needs of a large population is still impossible. Although current biogas plants can meet some energy needs, many governments are unwilling to invest in the sector.

Impurities: Impurities remain in biogas after refinement and compression. Use of Biogas in automobiles can corrode the engine's metal parts. Corrosion would result in higher maintenance costs. The gaseous mixture is far more appropriate for kitchen stoves, water boilers, and lamps.

Temperature Limitation: Biogas generation, like other renewable energy sources (such as solar and wind), is influenced by the weather. The ideal temperature for bacteria to digest waste is around 37°C. **Digesters in cold climates require heat energy** to maintain a constant biogas supply. Hence its use is limited to warm regions.

Suitability for Metropolitan Areas: Another disadvantage is that industrial biogas plants only make sense where raw materials (food waste, manure) are abundant. As a result, **biogas generation is much better suited to rural and suburban areas**. The material used in biogas generation emit bad smells. Hence it is necessary that the plants are sufficiently far from the inhabited areas

To power a 1MW power plant, at least 300 hectares of land is required, as minimum usable area. Large quantities of land must therefore be available, which poses a challenge in urban areas.

Transport: If the plant is located far away, suitable means of transport will be needed to transport the raw materials and the final product. This will add to costs and emissions.

Conclusion

Biogas can prove to be a sustainable alternative to fossil fuels. It is an ideal source to ensure energy security in the rural areas. It can also contribute to **decarbonization of the agriculture sector** through conversion of methane. There is a need to invest in new technologies that can help scale up the use of Biogas in urban areas. This can help in achieving the climate targets in the long run.

Syllabus: GS III, Infrastructure: Energy; GS III, Conservation.

Source: **Down to Earth**, **SBM**, **IEA**, **Outlook**

Domestic Workers in India: Status and Issues – Explained, pointwise

Introduction

The abuse faced by a domestic worker in her employer's home in Gurgaon has sparked outrage. However, such outrage is often short-lived. Violence against domestic workers in India has been reported for many years. Yet, their exploitation receives attention only when individual cases of violence get reported in the media. The response of the Union and State Governments is also reactive e.g., in the present case the Government of Jharkhand has set up a team to probe the case. There no uniform policy or legislation has been formulated regarding the domestic workers. As majority of such workers are migrants, there is a need for greater coordination between the Union and State Governments to address the challenges faced by the domestic workers

What is domestic work and the current status with respect to Domestic Workers in India?

According to the International Labour Organisation (ILO) **Domestic Workers Convention**, 2011, Article 1: **(a)** The term 'domestic work' means work performed in or for a household or households; **(b)** The term 'domestic worker' means any person engaged in domestic work within an employment relationship; **(c)** A person who performs domestic work only occasionally or sporadically and not on an occupational basis is not a domestic worker.

Based on everyday working hours and nature of employment, domestic workers are classified into part-time, full-time and live-in workers.

CATEGORISATION OF DOMESTIC WORKERS

Category	Definition
Part-Time Worker	Works for more than one employer for a specified number of daily working hours or performs specific tasks for each of the multiple employers everyday.
Full-Time Worker	Works for a single employer everyday for a specified number of hours, and returns to her/ his home every day after work.
Live-In Worker	Works full time for a single employer and stays in the premises of the employer or in a dwelling provided by the employer and does not return to her/his home every day after work.

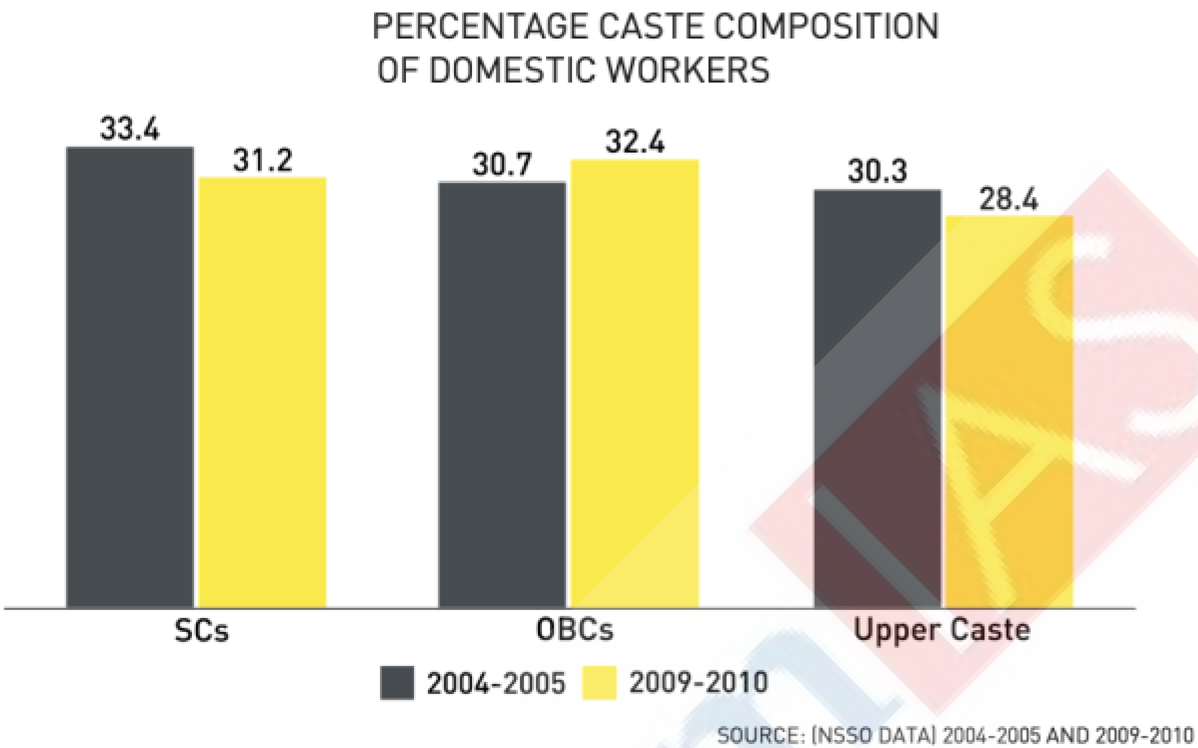
Source: SPRF

Current Status: It is estimated that there are 4.8 million domestic workers including 2.9 million female domestic workers. Domestic work accounts for 3.5% of women's total employment. Domestic workers form the third-largest category of workers after agriculture and construction. However, according to the National Domestic Workers' Movement, the number of domestic workers exceeds 50 million. More than 66% of the workers are working in urban areas. The share of women and girls in domestic work is rising at a much rapid pace, accounting for 75% increase in the number of workers in the last decade.

The majority of domestic workers in India are illiterate/ minimally educated and low-skilled. ~200,000 children are employed as domestic help and in *dhabas*.

What are the challenges faced by Domestic Workers in India?

Poor Working Conditions: Domestic workers are **denied minimum wages**. They lack any **social security cover**. Many workers are exploited to work for long hours. Live-in workers are more vulnerable to physical abuse and harassment. Most domestic workers are poor migrants with no other skills. Moreover, a majority of domestic workers belong to the SC/STs. They are more vulnerable to exploitation due to their lack of literacy and their social status.



Source: SPRF

Lack of Laws to Protect Rights: The domestic workers in India are not covered by any Act. The National Commission for Women had drafted the **Domestic Workers (Registration, Social Security and Welfare) Bill** in 2008-10. The Bill had sought to cover various aspects like wages, working conditions, offences and penalties, and creation of Domestic Workers Welfare Fund among others. However, the Bill wasn't passed. Similarly, the **Draft Policy on Domestic Workers has been waiting for approval** since 2017. In the absence of any regulation regarding working condition, workers remain vulnerable to exploitation.

Issues in Implementation: Domestic work was added to the list of scheduled employment under the **Minimum Wages Act, 1948**, which coincided with the 2011 ILO convention 189. However, the implementation remains poor, with most domestic workers working below minimum wage level. Only 13 States/UTs have passed legislation requiring minimum wages for domestic employees.

The **Unorganized Workers' Social Security Act, 2008**, requires all States to establish welfare boards to ensure domestic workers receive benefits. However, several States have not complied with the requirement.

Insufficient Data: There is lack of reliable data regarding number of domestic workers. There is large variation among estimates, with number of workers varying from 4 million to 50 million. The absence of data acts as a barrier to the formulation of appropriate plans and the allocation of resources for the improvement of the conditions of domestic workers.

Informal Placement Agencies/Housekeeping Companies: The companies that provide domestic workers in urban areas themselves function in an informal manner. They are more focused on their own profits and care little about the rights of the workers. Lack of scrutiny of their functioning contributes to the exploitation of the workers.

Neglect of Domestic Labour Rights: Legislation pertaining to workers such as the Industry Disputes Act, 1947, the Employee's Provident Fund Act, 1952, and the Factories Act, 1948, **do not recognise the labour performed by domestic workers in private households as 'work'**.

Poor Unionisation: Only a small fraction of domestic workers are unionised or are part of organised groups. Lack of unionisation **reduces their bargaining power** to demand better wages. In the absence of any union, **no support mechanism** is available to workers facing exploitation and physical abuse.

What steps have been taken for the welfare of Domestic Workers?

Safeguards: There are some Constitutional safeguards e.g., Article 23 (under Fundamental Rights) prohibits traffic in human beings, begar and other forms of forced labour. Article 39(e) under Directive Principles exhorts the State to ensure that the health and strength of individuals are not abused and that no one is forced by economic necessity to do work unsuited to their age or strength.

Domestic workers in India have been included in **The Unorganized Workers' Social Security Act**, **2008** and **The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013**. **The Child Labour Act** has included domestic work in prohibited employment for children only up to age of 14 years. **The Juvenile Justice Act, 2000** has been effective to some extent in the rescue of workers below the age of 18 years.

Schemes and Other Initiatives: The *Rashtriya Swasthya Bima Yojana* (RSBY) was extended to cover domestic workers. They are now covered under the *Pradhan Mantri Jan Arogya Yojana.*

The **e-Shram portal** aims to register 38 crore unorganised workers in the country.

A Voluntary Employers' Pledge to **Promote Decent Work for Domestic Workers** in India was launched and adopted by All India Organizations of Employers and Employers Federation of India.

The Union Minister for Labour and Employment has flagged off the first ever All India Survey on Domestic Workers (DW).

Global Initiatives: **(a)** The **Palermo Protocol**, part of the United Nations Convention on Transnational Organized Crime, provides the definition of '**trafficking in persons**'. A definition of trafficking that is in accordance with the Palermo Protocol has been integrated into the domestic law of India; **(b)** The International Labor Organization (ILO) and the European Commission have collaborated to establish operational indicators of trafficking in humans; **(c) Convention 29** of the International Labor Organization was passed in 1930. It has defined forced or compulsory labour. **Convention 189** of the ILO mandates decent working conditions for domestic workers.

What more steps should be taken going ahead?

First, there is a need for greater social and political commitment to address the challenges faced by domestic workers. In the absence of such commitment, the abuse will continue.

Second, Due to differences among categories of domestic workers (like part-time, live-in etc.), the methods of determining minimum wages are complex (employing either 'a need-based formula' or a living wage, based on time and piece rate). There is a **need to standardise** the type and amount of work performed.

Third, The data regarding migrant workers must be improved. This will help in better assessment regarding the status of domestic workers.

Fourth, Since most domestic workers in India are migrants, there is need for **better cooperation among States** to address the issues. The Union Government can step-in to ensure better coordination. A **draft Model Act can be enacted by the Parliament** which can be adapted by States according to their local conditions.

Fifth, A report by the Commonwealth Human Rights Initiative (CHRI) recommends that the **Government should formulate a binding National Policy on Domestic Workers**, instead of providing general guidelines.

Sixth, The Government has developed an **Integrated National Plan of Action against Trafficking**. The Government is also taking steps to put some remedial measures in place in the form of **Integrated Anti-Trafficking Units** and Anti-Trafficking nodal cells. However, there is a need for a **more comprehensive legislation on labour trafficking**.

Seventh, the CHRI Report recommends that the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act of 2013, must be reviewed to improve complaint mechanisms for domestic workers.

Eighth, There is a need to sustain and support organizations for domestic workers to improve their bargaining power. Civil society should take the lead in encouraging collective action among the workers.

Conclusion

Domestic Workers in India have been facing exploitation for long. Several social and political factors make them vulnerable. The lack of dedicated legal provisions and poor implementation of existing provisions has led to the present status. The Union and State Governments must step in formulate comprehensive policy and legislation to protect their rights. Violation of rights of workers should be dealt with strictly. At the same time, there is a need for greater sensitization to prevent instances of physical abuse.

Syllabus: GS I, Social Empowerment; GS II, Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes.

Source: Indian Express, SPRF, National Domestic Workers' Movement, The Leaflet