

Forum IAS

7 PM COMPILATION

16th to 31th October, 2022

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**
- ❖ **Out of the box thinking for value edition**
- ❖ **Best cost-benefit ratio according to successful aspirants**

[Yojana October Summary] Green Telecom – Explained, pointwise

Topic:- Economic development

Sub topic:- Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

Oil Production in India – Explained, pointwise

Topic:- Economic development

Sub topic:- Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

India Taiwan Relationship – Explained, pointwise

Topic:- International Relations

Sub topic:- India and its neighbourhood- relations.

Impact of Climate Change on Monetary Policy – Explained, pointwise

Topic:- Environment and Bio-diversity

Sub topic:- Conservation, environmental pollution and degradation.

Nobel Prize in Economics 2022 – Explained, pointwise

Topic:- Economic development

Sub topic:- Economy and issues relating to planning, mobilization

Direct Benefit Transfer (DBT): Advantages and Way Forward – Explained, pointwise

Topic:- Governance

Sub topic:- e-governance applications, models, successes, limitations, and potential

[Kurukshehra October Summary] Skills for Agri-Entrepreneurship – Explained, pointwise

Topic:- Economic development

Sub topic:- Transport and marketing of agricultural produce and issues and related constraints

Ban on Conversion Therapy – Explained, pointwise

Topic:- Social Justice

Sub topic:- mechanisms, laws, institutions and Bodies constituted for the protection and betterment of vulnerable sections.

Lancet Countdown on Health and Climate Change – Explained, pointwise

Topic:- Environment and Bio-diversity

Sub topic:- Conservation, environmental pollution and degradation.

[Kurukshehra October Summary] Promoting Women Agripreneurship – Explained, pointwise

Topic:- Social Justice

Sub topic:- mechanisms, laws, institutions and Bodies constituted for the protection and betterment of vulnerable sections.

CCI (Competition Commission of India): Provisions, Working and Challenges – Explained, pointwise

Topic:- Indian Constitution and Polity

Sub topic:- Statutory, regulatory and various quasi-judicial bodies.

[Yojana October Summary] Green Telecom – Explained, pointwise**Introduction**

With the advent of 5G Technology it is expected that there will be significant rise in towers, small cells and BT Stations (Base Transceiver). It is feared that it will result in accelerating Green House Gas (GHG) and Carbon emissions, contributing to global warming. To reduce the adverse effect on the overall ecosystem by the telecom sector, steps must be taken towards 'Green Telecom', to lessen energy consumption and migrate towards renewable sources of energy to mitigate the impact of global warming.

Contribution to Climate Change

Climate Change is the biggest challenge the world is facing today. This necessitates collective action by all countries to come together and discuss measures to curtail the GHG emissions in the atmosphere. All sectors like Agriculture, Industry, Services sector, etc., have to take corrective steps to mitigate the effects of climate change for a balanced ecological system.

Telecom services have become an integral part of our lives, being central to **communication, information and entertainment**. Telecom towers play a pivotal role in this process. The operations of these towers require electricity on a continuous basis for interruption-free telecom services. The electricity comes mainly from the power grid. A majority of electricity comes from emission intensive thermal power plants. Moreover when there are power cuts, the operations of these towers is supported by Diesel Generator (DG) Sets and battery back-up. Both the grid energy and DG sets contribute to the emission of Green House Gases, thus **increasing the carbon footprints**. A [TRAI Report](#) (2011) had estimated that **Telecom Infrastructure contributed about 1% of India's carbon emission** (annual). The proportion may have risen given rapid expansion in telecom infrastructure in the last decade. In addition, the energy consumption through these towers entails a significant amount of operational expenditure to the telecom service providers. This necessitates move towards Green Telecom.

Expanding Telecom Infrastructure

India's telecom market is the **second largest** in the world in terms of subscriptions. The market is characterised by one of the lowest broadband rates in the world. As per the latest TRAI report, India had 1.15 billion mobile subscriptions and about 800 million broadband connections as of May 2022. There are more than 7 lakh telecom towers spread over the length and breadth of the country. These towers house mobile transmitters and receivers (called Base Trans-Receiver Systems or BTS) at their base and antennas are mounted over these towers to transmit and receive mobile signals for connectivity with mobile devices.

Due to the pandemic, there has been a rapid growth in mobile broadband as people are using broadband for connecting through video-conferencing and using payment through applications like Unified Payment Interface (UPI). The proliferation of mobile and broadband has led to an increase in the number of towers, small cells, and BTSs.



Source: Yojana October 2022

A significant number of towers are in rural and hilly areas where the grid power supply is not very stable. There are frequent power cuts in many rural areas. As a result, these towers have to depend upon DG sets. It is expected that the advent of 5G technology will lead to a significant rise in the number of towers, small cells, and BTS (or equivalent electronics) resulting in an acceleration in GHG and carbon emissions, and the resultant contribution to the overall global warming.

Green Telecom

To ensure a Green Telecom sector and to reduce the adverse effect on the overall ecosystem, there is a need to take steps on the two main fronts.

First, Reducing the energy consumption of the electronics, designing eco-friendly buildings, consumables, and effective network planning with the overall aim to reduce power requirement.

Second, Migrating towards renewable sources of energy to mitigate the effects of global

Reducing the Energy Consumption

There are ways to reduce the energy consumption of the electronics used in providing telecom services including those based on 5G technology.

Use of 5G Technologies: In the 5G technology, the energy issues are handled from the design stage itself. Unlike earlier technological evolutions (2G, 3G, 4G), 5G technology takes care of network energy efficiency. The **energy efficiency** of future network like 5G is expected to be **improved by a factor of twenty** as compared to LTE/4G technology. 5G technology will also help in the **most efficient and flexible allocation of resources** for providing telecom and broadband services. It will help in power management at the equipment level itself, thus reducing not only power requirement but also the need for air conditioning. Further, 5G technology will allow **flexible use of spectrum** which is an essential element for wireless communication. This will have a direct impact on energy consumption.

Efficient Use of Network Operations: Traditional (4G and earlier) mobile networks spend only about 15% to 20% of overall power consumption on actual data transfer. The rest is wasted because of heat loss in power amplifiers (equipment kept running when no data is being transmitted), inefficient cooling systems and battery units. New approaches are needed to

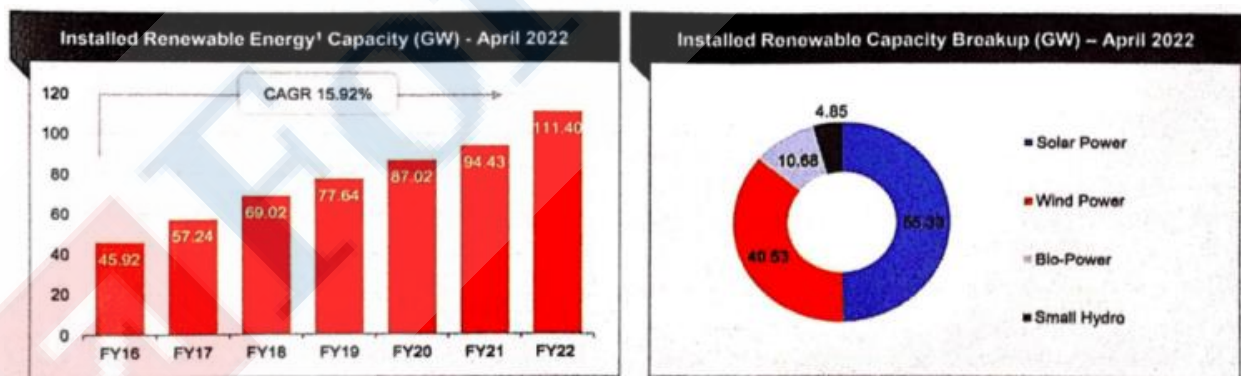
eliminate the energy wastage or harness that wasted power for other purposes by: **(a) Cell switch-off techniques**, i.e., by turning Radio-Frequency (RF) chains off when not in use and keeping only backhaul links alive; the base station is only changed to active mode when a signal is sensed. This can reduce base-station energy consumption by up to 40%; **(b) Introducing smart shutdown techniques using Artificial Intelligence (AI)** across multiple sites and radio networks to reduce power consumption; **(c)** Use of single Radio Access Network (RAN) platforms, in which a single base station supports 2G, 3G, 4G, and 5G technologies, thus replacing multiple pieces of equipment and reducing total power consumption; **(d)** Shutting down old 2G, 3G Technology-based systems; **(e)** Use of **Dynamic Spectrum Sharing (DSS)**, which allows new mobile technologies to make use of older networks' spectrum, sharing it on a dynamic basis; **(f)** Installing **Internet of Things (IoT) sensors** on infrastructure **to monitor energy usage** and quality of service, in real-time; **(g)** Use of AI & Machine Learning (ML) techniques to **support network automation**, and allocation of resources in an intelligent, proactive, and most power-efficient manner; **(h)** Use of **Self-Organising Networks (SON)** with AI capabilities to help make near real-time decisions to self-optimize the network with the aim to save power.

Use of end-to-end intelligent power systems: The combination of cloud infrastructure and AI in mobile networks can enable telecom service providers to move towards fully intelligent power-systems. A cloud-based system can coordinate base stations, power supplies and other equipment so that power supplies become intelligent and efficiencies are made throughout the network. In future, full AI-based intelligence energy systems will emerge in which different levels of power can be automatically made available depending on the time of day or application.

Migrate towards Renewable Sources of Energy

Telecom towers consume 65-70% of energy from the operations of telecom networks. To reduce the impact on environment, there is an urgent need to move to renewable sources of energy for telecom towers, i.e., Green Telecom towers for energy saving.

India was ranked fourth in wind power, fifth in solar power, and fourth in renewable power installed capacity, as of 2020. As per the Central Electricity Authority report, the total installed capacity increased by CAGR 15.92% between the Financial Years 2016-22.



Source: Yojana October 2022

Solar Power: India is favourably located in the solar belt (40°S to 40°N), and hence, one of the best recipients of solar energy. Solar energy generation has increased by more than 18 times from 2.63 GW in March 2014 to 49.3 GW at the end of 2021. Compared to diesel, solar electricity offers a sustainable, cost-effective, and environment-friendly electricity supply for the growing telecommunication industry. There are new **hybrid models** where power is drawn from both the grid and solar cells, thus reducing the dependence solely on grid and DG sets.

Wind Power: Wind power generation along with solar power generation (hybrid renewable power) is becoming quite popular. Conversion of wind energy has been expensive so far, along with the impact of a variable resource on the grid and siting. However, technology has advanced rapidly in recent years to accommodate these factors.

Geothermal Power: It is a renewable form of energy utilising underground hot water or steam created by the natural heat beneath the earth's surface. Low-temperature geothermal sources can be utilised to heat and cool by installing heat pump systems. Hot water or steam from high temperature geothermal sources can be used to power turbines to produce, clean and renewable electrical energy.

Fuel cell: A fuel cell combines hydrogen and oxygen to produce electricity, heat and water. Fuel cells operate best on pure hydrogen. Fuels like natural gas, methanol or gasoline can be reformed to produce the hydrogen required for fuel cells.

Other innovative solutions: Wave power, tidal power, and ocean currents can also be used to drive turbines to generate electricity. Technologies to harness these forms of power are presently being developed to the stage of commercialisation.

Barriers to Renewable Energy Implementation

There are significant barriers to the implementation of renewable energy for Green Telecom that need to be addressed.

First, Many renewable energy technologies remain expensive on account of higher capital costs, compared to conventional energy supplies for bulk energy supply to urban areas or major industries.

Second, Implementation of renewable energy technologies needs significant initial investment and may need support for relatively long periods before reaching profitability.

Third, There is still a lot to be done for consumer awareness of the benefits and opportunities of renewable energy.

Fourth, Financial, legal, regulatory, and organisational barriers need to be overcome in order to implement renewable energy technologies and develop markets in India.

Conclusion

With the proliferation of broadband and mobile devices, there has been significant growth in the number of telecom towers and associated electronics at the Base-Stations (electronics below the telecom towers). It is expected that the 5G technologies-based mobile network will be rolled out and expanded quickly in India. This will increase the number of towers and small cells significantly. To reduce the impact on environment, it is necessary to ensure a Green Telecom Sector. The Government should push adoption of the latest technologies to reduce power requirement. Moreover, the Government should accelerate the pace of the transition towards sources of green energy. This will in-turn reduce the GHGs and carbon emissions, thus helping in maintaining the ecological balance.

Syllabus: GS III, Conservation, Environment Pollution and Degradation.

Source: Yojana October 2022

Oil Production in India – Explained, pointwise

Introduction

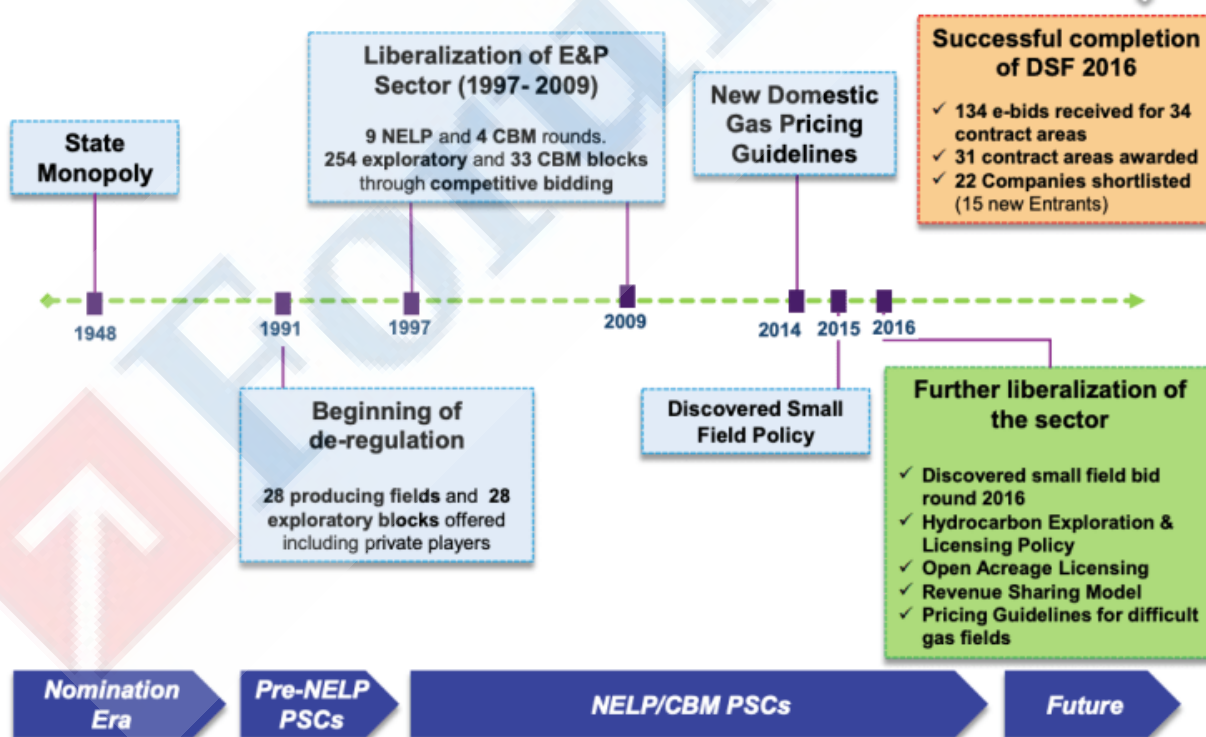
India's domestic crude oil production has been on a consistent decline. In FY2021-22, it slipped to 28.4 million metric tonnes (MMT). This is the **lowest domestic oil production in over two decades**. India is the third-largest consumer of oil in the world. Low domestic oil production forces India to meet 85% of its needs through imports. The fall in production has been attributed to the ageing wells. Despite several initiatives by the Government, the oil exploration and production activities have not picked up in India. The persistent uncertainties due to Russia-US tensions amid Ukraine war, clubbed with possibility of recession and falling exports have made it all the more important to boost domestic production in India. The Government recently offered 26 blocks (areas) for finding oil and gas through international competitive bidding under the Hydrocarbon Exploration and Licensing Policy (HELP).

What is the policy framework for Oil Exploration and Production in India?

The Hydrocarbon Exploration and Licensing Policy (HELP) was passed in March 2016. It replaced the earlier New Exploration Licensing Policy (NELP).

For a long period since the Independence, oil exploration and production was the exclusive domain of the Government. The Government began to liberalize the sector in 1991. In 1997, the **New Exploration Licensing Policy (NELP)** was launched, which tried to attract oil explorers through competitive bidding process.

Exploration and Production Regime in India



Source: Directorate General of Hydrocarbon

HELP was launched with the expectation of **reducing India's dependence on imports** by **increasing the domestic production of oil and gas** and thereby generating employment. HELP unifies the authority to grant licenses for exploration and production (E&P) of conventional and unconventional oil and gas resources, including oil, gas, coal bed methane, shale gas/oil, tight gas, and gas hydrates.

Under NELP, the oil production companies had to wait for the Government to invite bidding for oil blocks. The exploration and production was restricted to areas (blocks) opened by the Government. HELP introduced an **Open Acreage Licensing Policy (OALP)** that will **allow companies to approach the government at any time and seek permission to explore any block**. It also gives companies access to the National Data Repository (NDR) maintained by the government, to consult these maps and data to help inform them about which areas to bid on.

National Data Repository

National Data Repository (NDR) is a government-sponsored **Oil Exploration and Production data bank** with state-of-the-art facilities and infrastructure for preservation, upkeep and dissemination of data to enable its systematic use for future exploration and development. It comes under the Directorate General of Hydrocarbons (DGH). It has been operational since July 2017. The data stored in NDR include: **(a)** Seismic Data; **(b)** Well & Log Data; **(c)** Spatial Data; **(d)** Other Geological and Geophysical (G&G) data like Drilling, Reservoir, Production, Geological, Gravity & Magnetic etc.; **(e)** Reports and Documents.

What are the benefits of HELP?

First, The Profit Sharing contract has been replaced with **Revenue Sharing contract**. It will encourage cost efficiency. The Government will also not be concerned about the costs incurred by the explorer and need not scrutinize the costs. The explorers will be incentivised to start production as soon as possible. In the profit sharing contract (under NELP), the explorer was allowed to recover costs incurred in exploration activities (like drilling wells, creating infrastructure) before sharing the profits with the Government.

Second, There is a **single uniform licence** for all forms of unconventional hydrocarbons like shale oil, Coal Bed Methane (CBM) etc.

Third, Prices have been freed of Government regulation. The oil production companies will be able to charge a competitive market price subject to a ceiling. This ceiling is the landed price of alternative fuels.

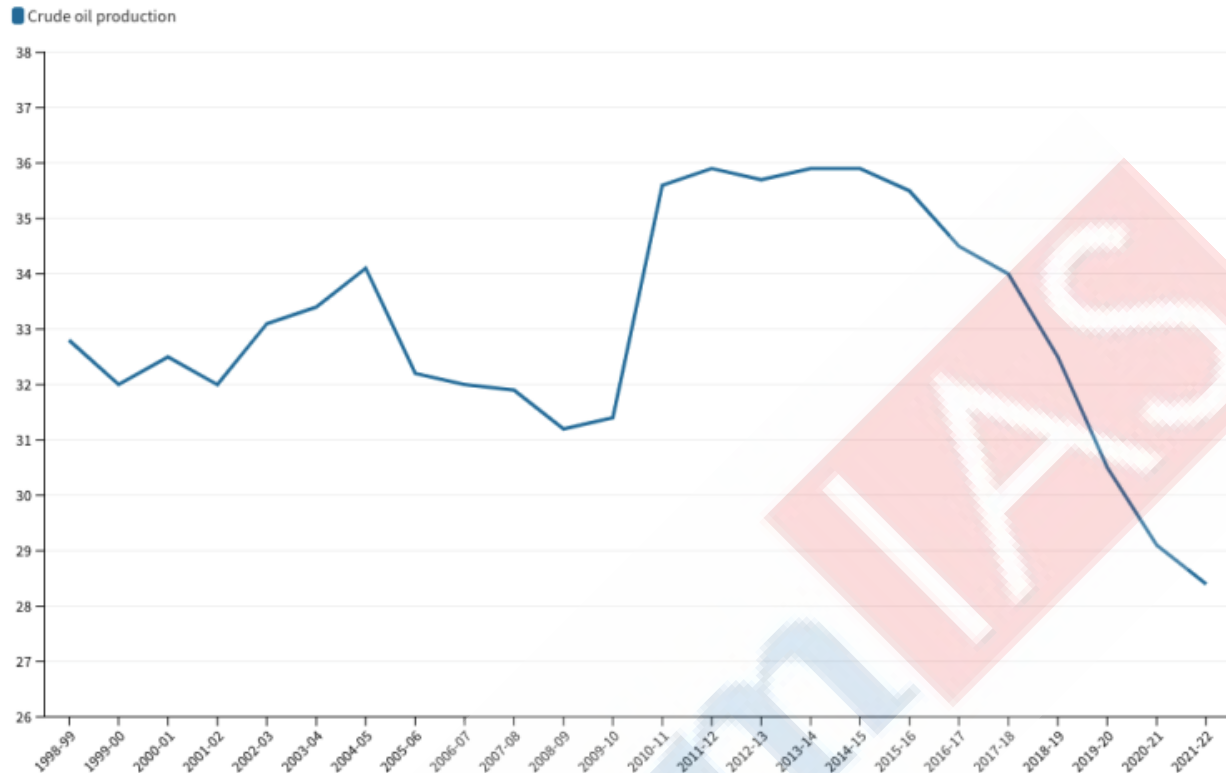
Fourth, under NELP, bids could be placed only for the blocks which were put on auction by the Government. Under HELP, open acreage policy will prompt the oil exploration and production companies to study NDR data and bid for any area they feel has high potential oil reserves.

Fifth, Lower royalty for explorers drilling in offshore areas to compensate the companies for the risks involved as costs incurred in these areas is

Policy category	HELP	Pre-HELP
Types of hydrocarbon	Covers all conventional and unconventional oil and gas	NELP covered only conventional oil and gas; Coal Bed Methane Policy covered coal bed methane
License	A single license for exploration and extraction of all types of oil and gas	Separate license required for conventional oil and gas, coal bed methane, shale oil and gas, and gas hydrates
Revenue model	Revenue-sharing model under which revenue will be shared with the government in the ratio submitted by bidders	Production/profit-sharing model under which government received a share in the profits
Coverage	Open acreage policy under which exploration companies can apply to explore any block not under exploration	Exploration was restricted to blocks opened for bidding by the government
Oil and gas pricing	Companies have the freedom to sell their production domestically without government intervention	Crude oil price was based on import parity; gas price was fixed by the government
Royalty	Concessional royalty for deep water (5 percent) and ultra-deep water (2 percent) areas, which are difficult to explore, and reduction of royalty in shallow waters (from 10 percent to 7.5 percent)	12.5 percent for the onshore areas and 10 percent for offshore areas; 10 percent for coal bed methane

What are the reasons for falling Oil Production in India?

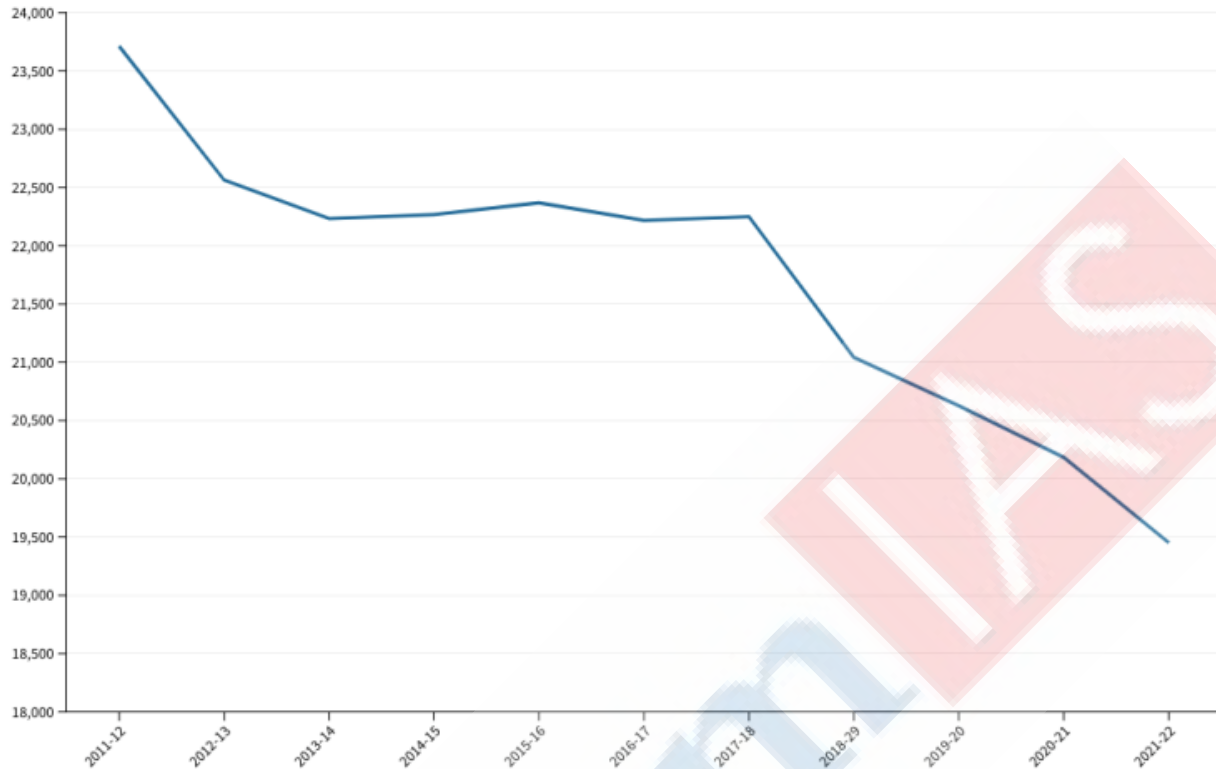
The domestic oil production in India has witnessed a consistent fall.



Source: *The Hindu*. The domestic oil production has been falling consistently since 2015-16. The production was 35.9 MMT in 2014-15. It has fallen to 28.4 MMT in 2021-22.

Ageing wells: Most of India's crude oil production comes from ageing wells that have become less productive over time. A **lack of new oil discoveries** in India coupled with a **long lead time to begin production from discovered wells** has led to a steady decline in India's crude oil production. The output of these ageing wells is declining faster than new wells can come up.

Dominance of State-owned Companies: Crude oil production in India is dominated by two major state-owned exploration and production companies, ONGC and Oil India. These companies are the key bidders for crude oil block auctions and end up acquiring most of the blocks that are put up for auction. Critics argue that over the years, ONGC has become a less efficient explorer. Rather, the focus has been more on acquisitions, not all of which make economic sense. ONGC has failed to strike a major oil reserve since the discovery of Bombay High.



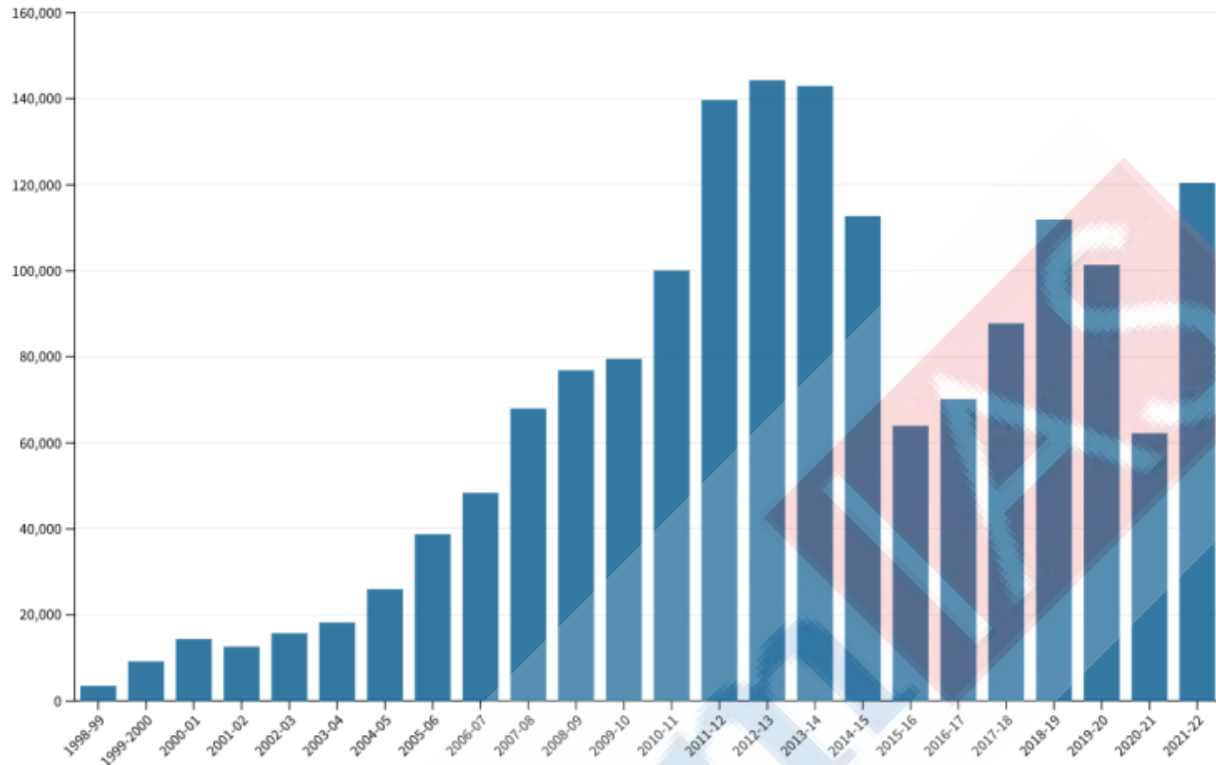
Source: The Hindu. The oil production by ONGC has been declining consistently since 2012-13 (23.7 MMT). ONGC produced 19.5 MMT in 2021-22.

Policy Issues and Lack of Private Participation: There are very few private players in the oil exploration sector. This is because of long delays in the operationalisation of production even after an oil block is allotted due to delays in approvals. Moreover, the Cairn Energy fiasco has acted as deterrent for foreign investors. The Government had made a **retrospective tax demand** from Cairn. Cairn won an international arbitration award against the Government, The matter was finally settled with payment of compensation by Government to Cairn Energy. The whole episode has **deterred foreign companies from investing in India**, despite very favourable terms under HELP.

High Royalty: Some experts say the high royalties make it unviable for the oil companies to invest in further exploration and production.

Why is boosting Oil Production crucial for India?

High Import Bill: Over time, India's crude consumption has soared. This has led to higher reliance on imports. In FY2021-22, India's crude oil import bill has risen to US\$ 120.4 billion as the crude prices surged. A higher import bill is detrimental to the macroeconomic situation as it widens the trade deficit and put pressure on Government finances and forex reserves.



Source: *The Hindu*. India's highest oil imports were in 2012-13 (US\$ 144.3 billion). The fall in global crude oil prices reduced the imports in the following years. However, imports are rising again due to rising demand and prices.

Energy Security: India's economic growth is closely related to its energy demand, therefore, the need for oil and gas is projected to grow more. Although, the Government has aggressively pushed renewable energy (especially in the electricity mix), the demand for oil and gas is expected to remain high for transportation and fertilizer sectors. According to the International Energy Agency (IEA), consumption of natural gas in India is expected to grow by 25 BCM, registering an average annual growth of 9% until 2024.

Inflationary Pressures: High oil prices contribute to higher domestic inflation, including high food prices. This impacts the poor the most.

What steps can be taken to enhance Oil Production in India?

According to a former Secretary with the Govt and oil and gas expert, following steps can be taken to boost domestic production:

First, The Government should **incentivize the domestic producers** to increase production. This can enable production of additional 18 MMT of oil in the country, saving ~US\$ 10 billion per annum over the current import bill (~6-7% reduction).

Second, alternative measures should be explored to reduce dependence on imports e.g., producing **syngas from coal**.

Third, some provisions of the Mining Act can be changed by adopting the model of Long-Term Production Sharing Contract (PSC) Extension of Oil Blocks for 50 years. This will enable better management in terms of planning and reservoir management.

Fourth, the Government need to **lower the effective levies** (including royalties, cess etc.) from 67% to 40% for pre-NELP blocks. However, this should be conditional upon **investment of surplus revenues to boost oil production** through deployment of **enhanced recovery technologies**.

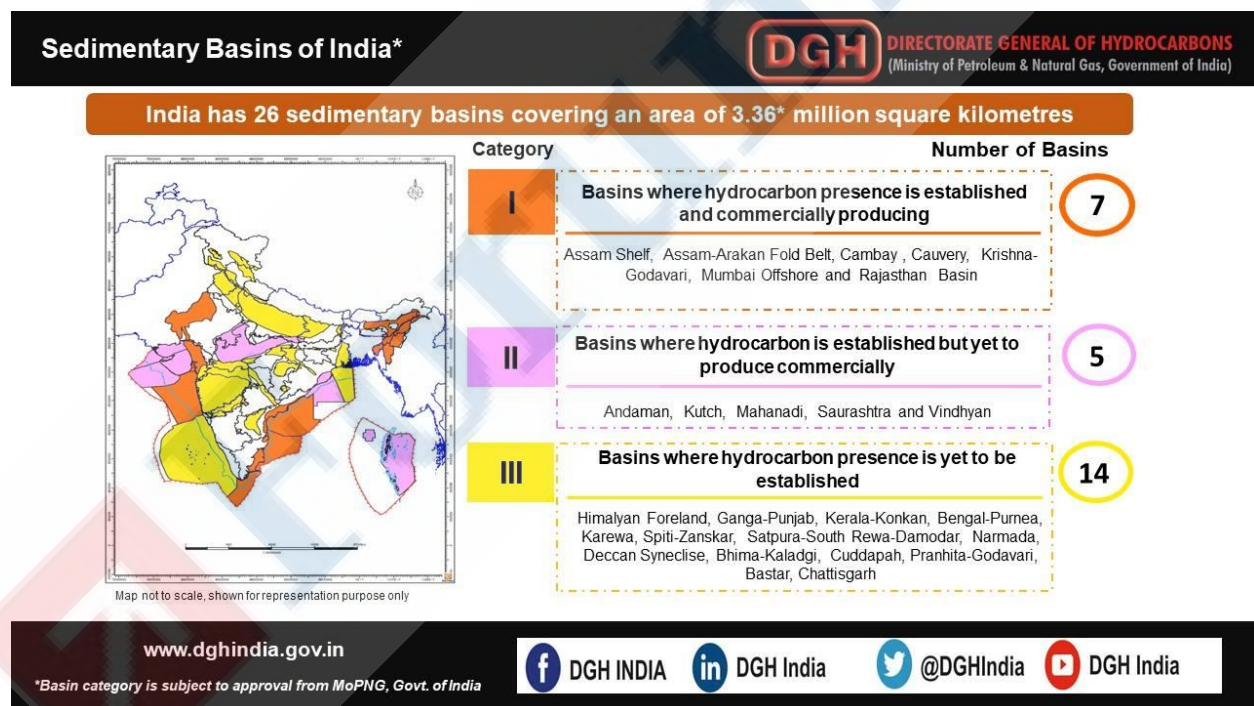
Fifth, the Government should bring **import parity** in the oil & gas value chain by imposing customs duty on crude, on a par with domestic sales tax. This will ensure a level playing field for domestic crude apart from bringing in additional revenue of ~US\$ 7 billion.

Sixth, new fields have long gestation periods. To bring down the cost, the Government should rework the tax for the pre-NELP blocks that constitute the bulk of domestic production today. This should be supplemented with reduction in royalty.

Seventh, The Chinese government offered a **floor price to oil producers**, insulating them to an extent from any sharp falls in international crude prices. This strategy can be adopted by the Indian Government as well.

Conclusion

The demand for oil will continue to remain high despite the expected green energy transition. The Government has taken proactive steps like improved exploration policy, building strategic oil reserves and acquisition of overseas oil assets by ONGC. Now the Government should focus on boosting domestic oil production which can be the most potent step in enhancing India's energy security.



Source: DGH

Syllabus: GS I, Distribution of key natural resources across the world; GS III, Infrastructure: Energy.

Source: [The Hindu](#), [Indian Express](#), [Mint](#), [Financial Express](#), [DGH](#)

India Taiwan Relationship – Explained, pointwise

Introduction

Two recent developments have brought the India Taiwan Relationship into focus. The first was the **China-Taiwan crisis** precipitated by the visit of Speaker of the US House of Representatives to Taiwan in early August 2022. The ensuing crisis and possibility of Chinese invasion on Taiwan led to worries about disruption in the supply chain of semi-conductor chips used in digital devices. Taiwan is the biggest manufacturer of such chips. The second event was **signing of MoU between Government of Gujarat and Vedanta-Foxconn Joint Venture** in September 2022 to set-up semi-conductor chip manufacturing plant in Gujarat. Foxconn is Taiwan based company and is one the world's biggest largest technology manufacturer. India Taiwan Relationship has remained subdued, with the Government of India maintaining restraint in order not to offend Chinese sensitivities. However, many foreign policy experts content that India should pursue its relationship with Taiwan with more vigour and counter the rising Chinese aggression.

Read More: [China-Taiwan Crisis and its Implications for India – Explained, pointwise](#)

How has India Taiwan Relationship evolved?

The founder of the Taiwan (Republic of China, ROC), Chiang Kai-shek had a warm and cordial relationship with Indian leaders (especially with Gandhiji and Pt. Nehru) in the pre-Indian Independence era. Chiang was a strong endorser of Gandhiji's non-violent struggle against the British Empire. With India's Independence in 1947, the Indian and Chinese nationalist governments (under Nationalist Kuomintang (KMT) Party) established embassies in each other's countries.

However, after the Communist take-over of China in 1949, and the establishment of ROC in Taiwan, there was a change in Indian policy. India was one of the first Asian countries to recognise the People's Republic of China (PRC under Communist Party) and its **One China** principle. It put a deep freeze on the Indian Taiwan Relationship during the Cold War era.

The situation began to change post-1991 collapse of the Soviet Union and the launch of India's **Look East Policy**. In 1995, the two countries established representative offices in Taipei and New Delhi. Taiwan established **Taipei Economic and Cultural Centre** (TECC) in New Delhi and India established **India Taipei Association** (ITA) in Taipei. The two establishments have played a significant role in improving the people-to-people contacts, and in expansion of cultural, economic and political relations.

From 2010 onward, there has been a subtle shift in India's One China Policy. During the Chinese Premier's visit to India in December 2010, India did not mention support for the One-China policy in the joint communique. There has been **no official mention of One-China since then**. Even in the recent China-Taiwan Crisis, India avoided the mention of One China Policy in its official statement. Simultaneously, India and Taiwan sought to institutionalise their relations in order to boost bilateral exchanges. The TECC established a second office (in Chennai) in December 2012, and the **Taiwan External Trade Development Council** (TAITRA) opened branch offices in Delhi, Chennai, Kolkata and Mumbai.

At the political level, the **India-Taiwan Parliamentary Friendship Forum** was established in December 2016. This includes regular visit by Parliamentarians to the other country. In order to boost people-to-people interactions, Taiwan created the **Taiwan Tourism Information Center** in Mumbai in 2018.

What is the current status of India Taiwan Relationship?

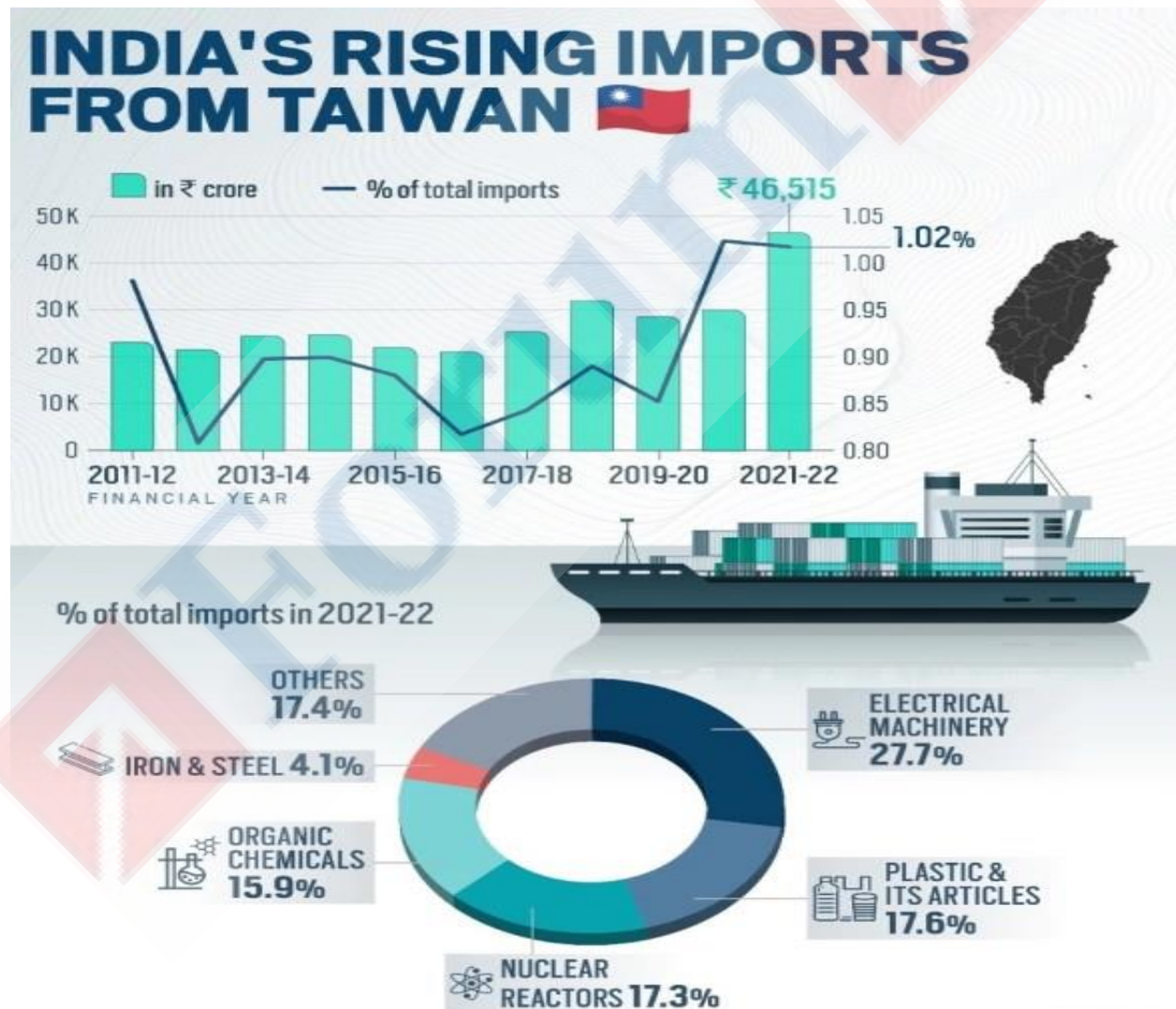
Strategic

India is among the 179 of the 193 member states of the UN that **do not maintain formal diplomatic ties with Taiwan**. India Taiwan relations picked up the momentum due to the **New Southbound Policy** initiated in 2016 by Taiwanese President Tsai to have **wider engagement** with potential allies and partners. Through the policy, Taiwan has comprehensive engagement with **Australia, New Zealand, India, South Asian** and **South-east Asian nations**.

Although, Indo-China relations and Indian concerns to Chinese sensitivities on Taiwan dominated the strategic partnership between India and Taiwan; in recent years border tensions with China (Doklam 2017 and Galwan 2020) have compelled India to re-think its policy on Strategic Engagements with Taiwan.

Trade and Investment

Bilateral trade between India and Taiwan grew from US\$ 2 billion in 2006 to US\$ 5.7 billion in 2020. India and Taiwan have started negotiations for a free trade agreement (FTA) in December 2021.



Source: India Today

Although, the bilateral trade has witnessed an increasing trend in recent times, the trade is much below potential e.g., India's exports to Taiwan contribute only 0.65% of India's total trade, while imports form 1.02% of total trade. In comparison, Taiwan's trade with China and the US amounted to US\$ 149.2 billion and US\$ 83 billion in 2020. Once the FTA is signed between India and Taiwan, it is expected that the trade between the two countries will witness big jump.

Growth rates and share in India-Taiwan bilateral trade in April-March (in US\$ million)				
	Apr-Mar 2021	Apr-Mar 2022	% growth	% share in total trade
Indian export to Taiwan	1620.15	2756.70	70.15	0.65
Indian import from Taiwan	4036.75	6233.39	54.42	1.02

Source: *Foreign Trade Performance Analysis, Ministry of Commerce & Industry, Government of India*

Source: ORF

India and Taiwan signed a **Bilateral Investment Agreement in 2018** to promote flow of investment. The Agreement seeks to ensure protection for Taiwanese investments in line with international standards. This has followed the **Double Taxation Avoidance Agreement (DTAA)** signed between the two countries in 2011. The cumulative FDI inflows from Taiwan to India have been worth **US\$ 756 million between April 2000 to June 2022**. FDI inflows from Taiwan increased almost 10 times between 2017-18 and 2018-19.

In 2022, the State Bank of India raised US\$ 300 million issuing Taiwanese '**Formosa Bonds**', the first Indian commercial entity to do so.

The recently announced Foxconn-Vedanta Joint Venture to set-up semiconductor manufacturing unit in Gujarat is expected to invest ~US\$ 20 billion over the next few years.

Cultural

Taiwan is aiming to strengthen cultural and people-to-people ties with India's Northeastern region by exploiting its '**tea culture**' as a new form of soft power diplomacy.

Since 2004, Taiwan has been offering 'Taiwan Scholarship' and 'National Huayu Enrichment Scholarship' to Indian students to study in Taiwan.

In 2018, India hosted the first ever Taiwan Film Festival in an effort to showcase and promote Taiwanese culture in India.

The number of Indian tourists to Taiwan has remained at ~40,000 annually, and an even fewer number of Taiwanese travels to India as tourists. One major issue is the absence of an Indian overseas tourism office in Taipei (tourism matters relating to Taiwan have been taken care of by the India Tourism office in Tokyo, Japan).

What are the challenges in India Taiwan Relationship?

First, India Taiwan Relationship has been overshadowed by China's aggressive stance. Despite being silent on One China Policy in recent times, India has not openly supported Taiwan at international level e.g., India has not supported Taiwan's bid for Observer status in bodies like the WHO.

Second, India has not yet formally recognized Taiwan (ROC). This severely limits cooperation on strategic, military and economic spheres. The lack of formal linkages has also restricted ministry-level agreements and educational exchanges, leaving the potential of India-Taiwan ties unrealised and dormant.

Third, the progress of the India Taiwan Relationship has lacked a long-term strategic vision because of external uncertainties. The approach has been ad-hoc. As a result, trade and investment has remained much below potential e.g., Taiwan's FDI in the US was US\$ 13.7 billion in 2020 and US FDI in Taiwan was US\$ 31.5 billion.

Fourth, Economic cooperation and investments have also been limited by factors like insufficient understanding of domestic markets, corruption, tax regulations, and linguistic and cultural barriers.

What steps can be taken to further deepen India Taiwan Relationship?

A foreign policy expert has suggested a three-dimensional approach to boost ties with Taiwan.

First, the two countries should strive to **strengthen bilateral ties and expand areas of cooperation**. Cooperation in the fields of culture, education (student exchange), science and technology, and development assistance should be strengthened through linking the **Act East Policy** and the **New Southbound Policy** (NSP). e.g., Recently, some Indian and Taiwanese think-tanks have concluded agreements to enhance cooperation and joint research. Taiwanese experience related to China can be utilized to enhance domestic expertise with respect to China.

Second, India should **engage Taiwan** through available **informal and formal regional platforms** e.g., Japan's ruling party, the Liberal Democratic Party (LDP), held a security dialogue with the Taiwan's ruling party Democratic Progressive Party (DPP) in August 2021. Such arrangement can be replicated by India. This is political engagement, yet not official as the Governments are not directly involved.

Third, Taiwan should be accepted as a **part of the wider Indo-Pacific region**. India and Taiwan are two vibrant democracies with shared interests and common concerns. Taiwan can be gradually involved in contributions towards ensuring a **rules-based order** in the Indo-Pacific.

Apart from the above, there are other possible steps.

Fourth, the Taiwanese Government has been requesting the Government to permit them to set up an office of the Taipei Economic & Cultural Centre (TECC) in Mumbai. This should be promptly granted as it would help in boosting Taiwanese investments in India.

Fifth, Countries like the US, Japan, South Korea, Australia and the Philippines regularly send **Parliamentary delegations** to Taiwan. India's approach hasn't been consistent in this regard (India-Taiwan Parliamentary Friendship Forum is inactive). India must institutionalize this process to ensure a regular exchange. This will strengthen political ties between India and Taiwan.

Sixth, India and Taiwan should push for **early closure of FTA negotiations** and conclude the Agreement at the earliest.

Seventh, the Parliamentary Committee on External Affairs observed in 2018 that if China was unwilling to reconsider its stance on outstanding border issues and sovereignty concerns of India, India should contemplate using all options including its relations with Taiwan. India should consider making **One China Policy contingent on China following One India Policy**.

Eighth, India should join the G-7 in backing observer status for Taiwan in technocratic international bodies.

Conclusion

India Taiwan Relationship has remained much below potential due to China factor. However, many policy experts have made a case for stronger ties with Taiwan, especially in the context of

rising strategic importance of semiconductor chip supply chains. India has a lot to gain from having Taiwan as a strategic partner in multiple domains. Commentators have commended India's Foreign Policy for not succumbing to Western pressures on Russia-Ukraine War or trade ties with Russia. India should extend this approach to its relationship with Taiwan to protect its strategic interests.

Syllabus: GS II, India and its neighbourhood relations.

Source: [The Times of India](#), [Foreign Policy](#), [ORF](#), [ORF](#), [Indian Express](#), [IFRI](#)

Impact of Climate Change on Monetary Policy – Explained, pointwise

Introduction

The devastating effects of climate change are becoming increasingly evident. The Monsoon rainfall is becoming increasingly erratic. There is wide variation in regional distribution of rainfall, the frequency of extreme rainfall events is rising followed by prolonged dry spells. This year, the regions of East Uttar Pradesh, Bihar and Jharkhand received very low rainfall during the paddy-sowing period. Abnormal rainfall in October has damaged the standing crop. These events will lead to lower production of rice for this year's kharif season. Earlier, heat waves in March had destroyed the wheat crop. The wheat stock with Food Corporation of India has reached its lowest level in recent times. Thus the shortage will result in higher prices and inflation. Demand of energy will become volatile due to higher temperatures and extreme events, leading to more volatile prices of oil/gas in global markets. The uncertainty in prices will make it difficult for the Central Banks to intervene and control inflation. Thus, Climate Change will profoundly impact Monetary Policy.

What are the major impacts of Climate Change on various economic parameters?

Climate Change has posed both physical and transitions risks for the economy. **Physical risks** include **extreme weather events** (like heavy rainfall, having short and medium term impacts) and **gradual warming/slow onset events** (like desertification, having medium and long term impacts). There are **transition risks** which include risks/uncertainties associated with **transition to low-carbon economies** based on green energy resources (like Green Hydrogen) and technologies based on new approaches (like [Circular Economy](#)).

These risks will have impact on economic parameters (macroeconomic variables) like output, consumption, investment, employment, wages and inflation among others.

Variables	Type of climate risk		
	Physical Risk Extreme weather events (Short-Medium Term)	Physical risk Gradual warming/volatile temperatures and precipitation patterns (Medium-Long Term)	Transition risk Transition to low-carbon economies (Short-Long Term)
Output	- Lower due to physical destruction (crop failures, disruption of supply chains and tourism)	- Lower due to lower labour productivity, investment being diverted to mitigation, and arable land losses.	- Policy uncertainty due to uncertain outcomes/impacts of climate change can disrupt output across sectors.
Consumption	- Lower due to increased uncertainty, e.g. to future income prospects. - Higher due to increased household demand to replace destroyed goods.	- Higher volatility due to shifts in sectoral demand.	- Likely lower due to increased sustainability awareness (e.g. preference for circular economy). - Shift towards greener goods, but the impact on total consumption is uncertain .
Investment	- Lower due to increased uncertainty and direct destruction of the capital stock. May pick up following an extreme event to rebuild destroyed infrastructure. - Diversion of investment away from productivity-enhancing investment and towards mitigation.	Shifts in investment towards climate adaptation technologies .	- Higher in investment towards climate mitigation technologies. - Overall, Lower because of higher uncertainty surrounding future policies.
Productivity	- Lower labour and capital productivity due to (possibly permanent) capital and infrastructure destruction.	- Lower labour productivity because of lower human capital accumulation (as a result of increased health issues and mortality).	- Effect on productivity uncertain because technological progress could offset the loss in productivity.
Employment	- Lower because of the destruction of physical assets and the dislocation of people from the immediate vicinity of a disaster area.	- Reduction in labour supply in sectors such as construction and agriculture, where it becomes less desirable to work in higher temperatures. - Increased international migration flows, might raise the labour supply in less affected regions .	- Changes in sectoral composition of labour market (e.g., less supply in agriculture/construction) might trigger a rise in structural unemployment .

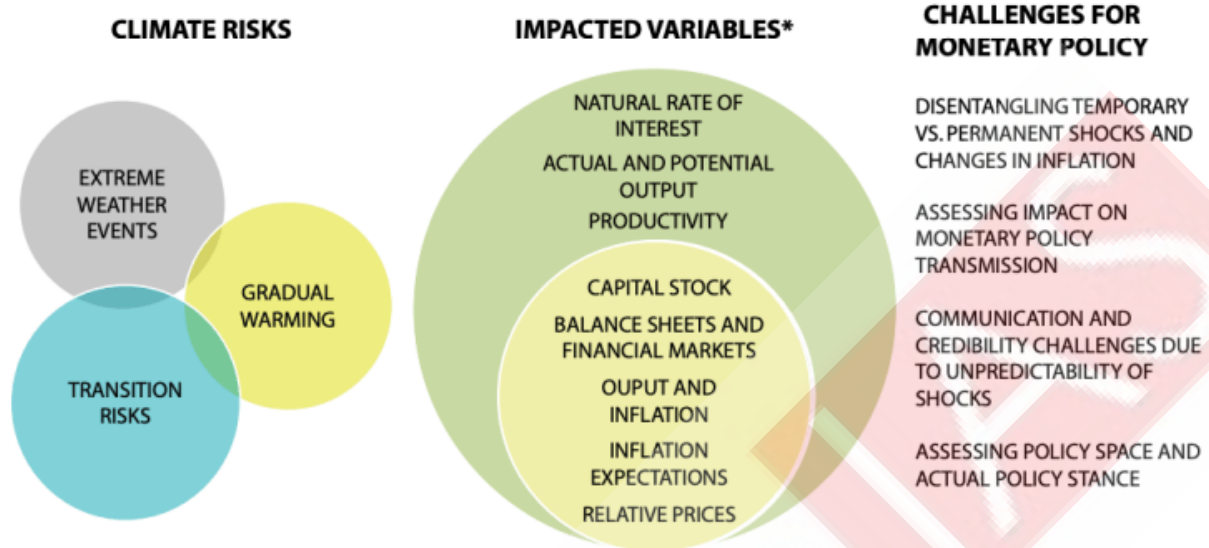
Extreme weather events will **destroy crops and infrastructure**. Thus the output will decrease in the short term (e.g., rice output is expected to fall in Kharif season 2022). Similarly, in the medium/long term, arable land might reduce due to **desertification**, reducing the output. It is feared that in the medium-long term, the **productivity levels will fall** due to higher mortality and health issues due to altered climate patterns.

Variables	Type of climate risk		
	Physical Risk Extreme weather events (Short-Medium Term)	Physical risk Gradual warming/volatile temperatures and precipitation patterns (Medium-Long Term)	Transition risk Transition to low-carbon economies (Short-Long Term)
Wages	- Uneven effects across sectors and economies (agriculture, tourism and construction are most exposed in developing economies). - Reallocation of the workforce can generate labour shortages in some sectors where wages could increase temporarily. - Wage patterns contingent on the length of the disaster effects e.g., flooding	- Lower wages could result from lower productivity caused by gradual warming.	- Potential shift of workers from one sector to another and their training needs .
International trade	- Disruption of trade flows due to disasters could lead to lower incomes. - Supply chain interruptions can lead to supply disruptions . - Tourism may suffer from destruction of infrastructure.	- Disruption of trade routes due to geophysical changes (such as rising sea levels). - Increases in average temperatures could diminish export values.	- Taxes, regulations and restrictions might disrupt trade export routes . Changing international demand for different types of energy products may affect energy exporters and importers differently. - Risks of distortion from unilateral climate policies.
Exchange rate	- Depreciation pressure on currencies of economies affected by climate disasters, because of negative trade shocks and lower labour productivity .	- Depreciation pressure on currencies of economies frequently affected by climate disasters and losses of arable land , because of extreme temperatures.	
Inflation	- Increased inflation volatility , especially regarding food, housing and energy prices. - Impact on inflation expectations.	- Relative price changes due to shifting consumer demand.	- Energy prices affected most by climate-related transition policies, such as carbon taxes. - Policy uncertainty could weigh on inflation through its impact on investment, demand and inflation expectations.

Climate induced migration will **reduce supply of labor** in regions impacted by extreme climate change events (like coastal cities at risk of submergence) and increase in regions considered safer. This will **impact wages** differently in different regions. Wages will have direct **impact on demand** and thus on **consumption, production/output** and **inflation**.

Disruption in supply chains will impact international trade. Sea level rise can impact trade routes as well. Change in **energy consumption pattern** (shift away from fossil fuels) will alter the **trading pattern** and trade balance of nations, consequently impacting **exchange rates**.

Climate risks, macroeconomic variables and challenges for monetary policy



Source: *Climate Change and Monetary Policy*, Network for Greening the Financial System

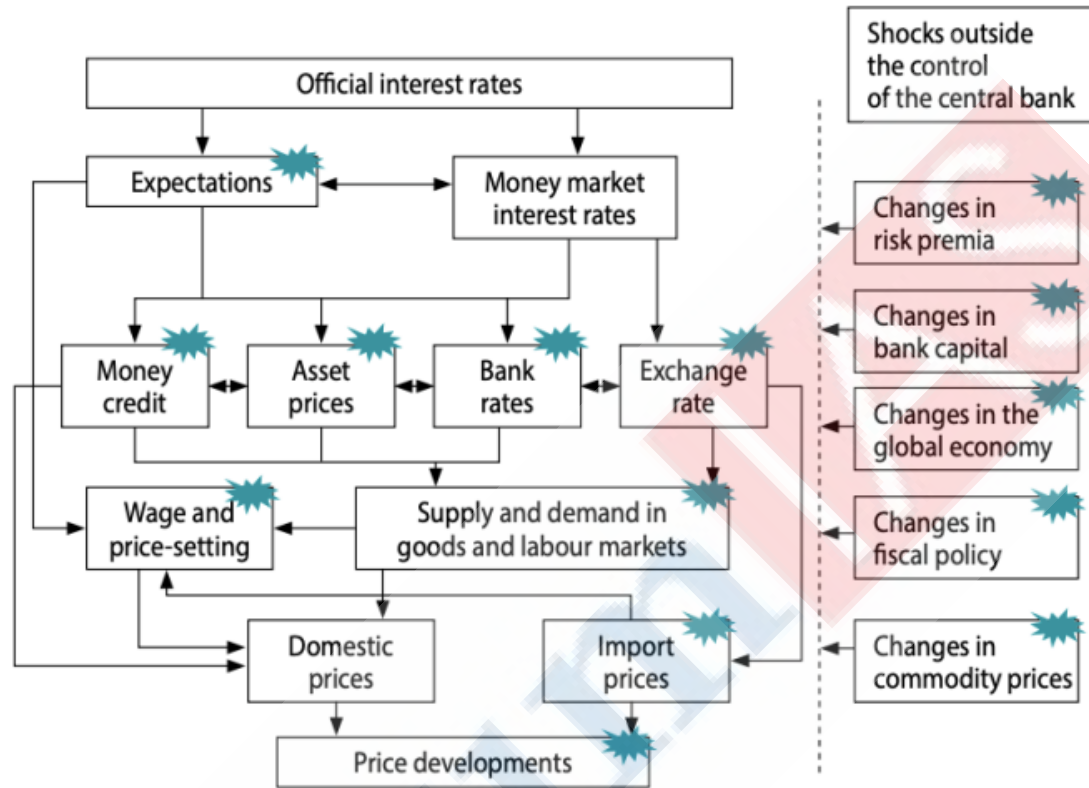
Hence it is evident that Climate change will have a major impact on macroeconomic variables in future. The resulting changes in the economic systems will make it difficult for the Central Banks to ensure macroeconomic stability in general, and control inflation in particular. Even greater challenge is that it is **very difficult to quantify these impacts**. There is an expectation that a particular parameter (say wages) may increase or decrease (even that is not very certain), but it is very difficult to estimate by how much (5%, 10%, 20% and so on). The lack of clarity will make it difficult to take **decide the policy instrument to use** (e.g., Repo Rate/CRR/MSF etc.) and the **quantum of change** (like 5/10/15 basis points or more).

What is the impact of Climate Change on Central Bank's ability to manoeuvre Monetary Policy? Climate change events will impact the ability of the Central Banks to carry their mandates of inflation control, ensuring employment and general macroeconomic stability.

First, the underlying reason of climate-induced inflation is **supply-side disruptions (supply-side inflation)** e.g., fall in production of crops and the resulting food inflation. Monetary policy has limited ability to control supply side inflation. Additionally, faulty policy prescriptions (like raising interest rates) can slow down growth rate of the economy.

Second, climate change will impact **monetary policy transmission**. Climate change will affect the balance sheets of financial intermediaries (like Banks) and asset valuations e.g., climate related disasters (and resulting destruction of infrastructure) may force some corporates to go bankrupt thus **increasing Non-performing Assets (NPAs)**. This will negatively impact **Banks' capacity to lend** leading to discontinuity in monetary policy transmission. Additionally, some long-term investments (e.g., in coal-based thermal power plants/oil wells/coal mines etc.) may be rendered useless ('Stranded Assets') due to transition of economy towards low carbon technologies. This asset revaluation will also constrain Banks' ability to provide credit to the economy.

Impact of climate risks on monetary policy transmission channels



 denotes channels which could be impacted directly or indirectly by physical or transition risks.

Source: *Climate Change and Monetary Policy, Network for Greening the Financial System*

Third, the effects of climate change could make it harder for monetary policy decisions made by central banks **to affect how households and businesses can get money to spend and invest** e.g., losses from physical risks may reduce the ability of corporates to invest despite lowering of interest rates by the Central Bank.

Fourth, some economists argue that climate change could lower the **natural or equilibrium rate of interest** which balances savings and investment. This could **further diminish the space for conventional monetary policy** e.g., higher temperatures might impair labor productivity or increase rates of morbidity and mortality. Productive resources might be reallocated to support adaptation measures. Climate-related uncertainty may increase precautionary savings and **reduce incentives to invest**. Collectively, these factors can reduce the real equilibrium interest rate and therefore increase the likelihood that a central bank's policy rate will be constrained.

Natural/Equilibrium Rate of Interest

The natural rate of interest is also called the neutral interest rate, neutral rate, and the **long-run equilibrium interest rate**. This interest rate is the theoretical short-term interest rate that would **support the economy at maximum output or full employment GDP while keeping inflation constant**. The neutral rate is often referred to by Central Banks when making decisions about the Bank Rate. This neutral rate is essentially the dividing line between expansionary and contractionary monetary policy.

What should be the approach going ahead?

First, There is needs to **develop a better understanding of the impact of climate change** on the macro economy, like productivity, output, inflation, risks to the financial system and the implications for monetary policy.

Second, the RBI and other Central Banks should **update their economic models factoring in climate change**. The update models should account for energy transition, and the impact of climate change policies of the Governments. Moreover, since there are inherent uncertainties associated with Climate Change, models must develop **scenario analysis for various possibilities**.

Third, Central Banks (RBI) should work closely with Market Regulators (SEBI) to develop new framework for **enhanced disclosure mechanisms related to climate-related information** (e.g., proportion of assets (say factories) located in climate vulnerable regions). This will increase general awareness and **understanding of climate risk**.

Fourth, Central Banks and Market Regulators should also develop and strengthen in-house **risk assessment capabilities** of climate-related risk and explore how to **incorporate climate change risk** in economic models and credit ratings. This would ensure that they reflect all relevant risks arising from climate change.

Fifth, Central Banks should **clearly articulate the changes in their monetary policy** in context of climate change with the corporate sector, financial markets and the general public. Clear communication is a basic requirement for the success of the Monetary Policy.

Conclusion

There is ample evidence to establish that climate change is a certainty. However, the impact of climate change on macroeconomic parameters in the short to long term are still uncertain and difficult to quantify. This has posed a new challenge to the Central Banks in exercising the monetary policy. Central Banks must step up efforts, undertake further research to understand climate risks and incorporate them into their economic models. A proactive approach will help in better forecasting of risks and consequently a more effective policy response to mitigate the impacts of climate change on the economy.

Syllabus: GS III, Indian Economy; GS III, Environmental Pollution and Degradation.

Source: [Indian Express](#), [IMF](#), [European Central Bank](#), [Network for Greening the Financial System](#)

Nobel Prize in Economics 2022 – Explained, pointwise**Introduction**

The Nobel Prize in Economics 2022 has been awarded to American Economists Ben Bernanke, Douglas W. Diamond and Philip H. Dybvig. They have been awarded the Nobel for their research on banks and financial crises. Their works laid the groundwork for most of the research undertaken in the field of banking. Their research is still used to show the importance of banks in keeping the economy running smoothly, the role of bank failures in exacerbating the financial crises and the need to make the banks stronger during such crises. Their work has had a big impact on how the financial markets are regulated and how financial crises are dealt with or can be avoided.

What are the important takeaways from the research of winners of Nobel Prize in Economics 2022?

Ben Bernanke

Bank Failure exacerbated the Crisis: Ben Bernanke looked at the Great Depression of the 1930s, which started in the US but transformed to a global crises that lasted for almost 4 years. He argued that bank failures in the 1930s were not just a result of the Depression but also a **factor in exacerbating the crisis** itself. He argued that failures of banks resulted in inability to channelise savings to investments that could have revived the economy faster. Until Bernanke's work, bank failures were seen as a 'consequence' of the financial crisis. He proved otherwise that **bank failures were the 'cause' of the financial crisis**.

Role of 'Bank Runs': Bernanke also showed the 'Bank Runs' as the main reason for turning of a normal recession into economic crisis. Bank Run refers to a situation when depositors are worried about bank's sustainability and **rush to get their deposits withdrawn from the bank**. If lot of depositors withdraw the deposits at the same time, Bank won't have enough reserves to cover all withdrawal leading to **liquidity crisis** and eventually **insolvency/bankruptcy**.

Role of the State: Bernanke also showed that role of the State becomes vital in averting the crisis. Powerful measures by Government are required to prevent bank runs. The **deposit insurance provisions** (where a certain amount of one's deposits in a bank are insured) is a critical tool towards building trust and preventing bank runs.

Bernanke's role as the Chairperson of the Federal Reserve Bank of the US during the financial crisis of 2008 proved to be crucial in tackling the crises.

Douglas Diamond and Philip H. Dybvig

In the 1980s, Diamond and Dybvig worked together to **develop theoretical models of the roles of the banks in the economy** and the **factors that make the banks susceptible to Bank Runs**. The difference in tenures of deposits in banks (short) and the loans by banks (long) leads to **asset-liability mismatch**. Even rumours about Bank's imminent collapse can trigger panic prompting the depositors to rush to withdraw their money causing a bank run. This eventually leads to bank failure (self-fulfilling prophecy).

In 1984, Diamond also demonstrated that banks serve a "societally important function as **intermediaries between many savers and borrowers**". This is because banks are in the best position to evaluate the creditworthiness of borrowers and "**ensure that loans are used for good investments**".

Together, the research of Bernanke, Dybvig and Diamond have been instrumental in laying down the **foundation for modern bank regulations**.

Model proposed by Economists

The economists also proposed potential solutions to averting potential bank crises e.g., measures like deposit insurance and 'lender of last resort' policy. **Deposit Insurance** (by Government) can instil confidence among depositors. When depositors are sure that Government has guaranteed protection of their money, they do not rush to withdraw their deposits from banks thus forestalling bank runs. Most countries now have plans in place to protect bank deposits

What is Asset-Liability Mismatch?

Deposits are liability for banks (i.e., banks have to pay deposits back to depositors when demanded). Deposits are also principal source of funding for banks, which they use to lend money to others. The range of maturity period of deposits is **short to medium term** (few days to

1-2 years, sometimes up to 5 years). Banks are obligated to pay back the deposit (plus interest) at the time of maturity.

Loans by banks are an asset for them (i.e., banks will receive the loan back from borrower). The maturity period of loans is generally longer compared to deposits. In some cases, like loans for infrastructure projects, the term of loan can be as long as 20 years or more.

Thus there is a difference in the terms of deposits and loans. A situation in which a large number of long-term loans are provided from funds with substantially shorter maturities is referred to as having an **asset-liability mismatch**. Banks keep a certain proportion of deposits as a reserve to meet such demands of withdrawal of deposits. However, a situation may arise where the reserves set aside may not be enough to meet the withdrawal needs. This may lead to shortage of money to pay back to depositors leading to short liquidity issues.

Consequences of Asset-Liability Mismatch

Interest rate risk and liquidity risk are the biggest repercussions of asset-liability mismatch.

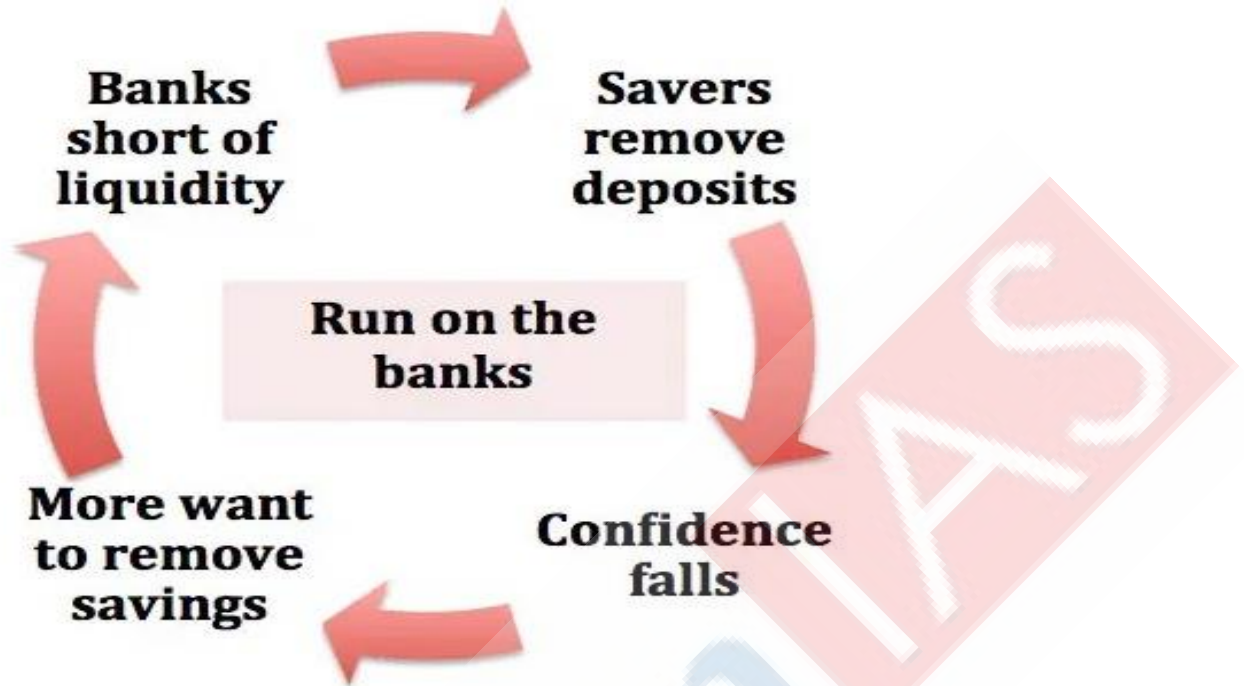
Interest Rate Risk: Shorter-term deposits are repriced faster than loans. If interest rates rise, the bank must pay a greater rate on maturing and new deposits. However, the loans cannot be repriced quickly. As a result, Banks may have to pay more on deposit interests than they earn from interest income from loans.

Liquidity Risk: When loans and deposits have varying maturities, liquidity difficulties may occur. Banks must repay deposits (with interest) at maturity. But they can't recall loans for repayment. Banks will be unable to service their depositors if they do not acquire fresh deposits or roll over existing accounts. In an emergency, they may pay high interest to raise money.

What causes Bank Run?

A bank run happens when depositors lose their faith in the sustainability of the Bank. Bank runs typically occur due to investors' panic rather than solvency issues with a bank. If depositors for some reason feel that the financial health of Bank is poor and their money is not safe with the Bank, they may rush to withdraw their deposits from the Bank.

Banks keep a small portion of those savings (deposits) as a separate reserve to meet withdrawal needs. However, if there is large rush for withdrawal it may lead to exhaust the reserve. A bank would be compelled to sell its long-term investments, even at a loss. As more clients withdraw money, there is a greater chance of default, which will cause further withdrawals. Eventually, the Bank not have enough money to pay back the depositors. This leads to liquidity crisis. Even though Bank has assets (loans), they can't be used to repay as they are due at a later stage. If withdrawals continue to persist, Banks may eventually fail and go bankrupt.



Customer Panic, rather than the bank's true insolvency, causes a bank run. As more people remove funds, the possibility of bankruptcy rises, prompting even more withdrawals. To deal with the panic, the bank may limit the quantity of withdrawals per customer or halt all withdrawals entirely. In addition, the bank may get more cash from other banks or the central bank in order to grow its cash on hand.

When numerous banks are involved in an unchecked bank run, it produces an industry-wide panic that can lead to an economic crisis.

What is the relevance of the Works of winners of Nobel Prize in Economics 2022 to India?

There have been scare of bank failures/bank runs in India especially in multiple cooperative Banks.

To keep people's faith in the banking system, the Government and RBI have taken steps like boost deposit insurance, make it easier for weaker lenders to be taken over, and take steps to stop bad loans. The Government is now working to privatize banks and combining them to make them larger entities. This will enable them to make bigger investments (loans to companies) that can boost economic growth. However, Government must take appropriate regulatory steps based on the works of the winners of Nobel Prize in Economics 2022 to ensure that financial sector stays robust and there is no possibility of bank runs.

Conclusion

The works of the winners of Nobel Prize in Economics 2022 have proved to be useful in guiding policy and regulatory framework to avoid potential crisis/mitigating the impact of ongoing crises. Several economists have lauded the role of Ben Bernanke in addressing the banking and financial crisis of 2008. There are valuable lessons for authorities in India to undertake appropriate regulatory steps to avoid such crises in India.

Syllabus: GS III, Indian Economy

Source: [The Hindu](#), [The Hindu](#), [Indian Express](#), [Mint](#), [Economic Times](#)

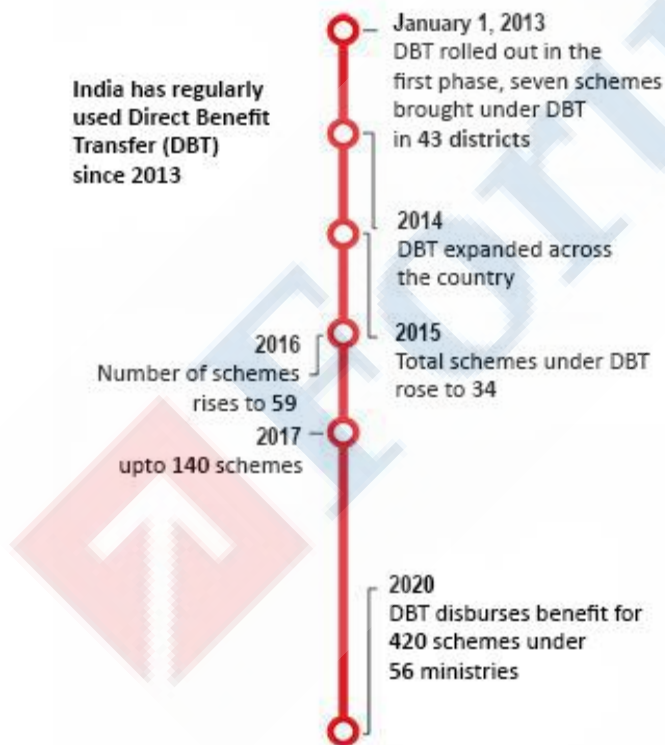
Direct Benefit Transfer (DBT): Advantages and Way Forward – Explained, pointwise

Introduction

The International Monetary Fund (IMF) has praised the Direct Benefit Transfer (DBT) Scheme, calling it a **'logistical marvel'** that has reached hundreds of millions of people. An IMF Deputy Director said that DBT programme has helped people with low income levels especially women and the elderly praising the technological innovation behind it. Further, **developing countries can learn a lot from India's DBT initiative**. Earlier, the President of the World Bank Group had also urged other nations to adopt India's move of targeted cash transfers instead of broad subsidies, noting that "India managed to provide food or cash support to 85% of rural households and 69% of urban households". The DBT scheme has proved to be a remarkably successful endeavour in providing support to the poor and ensure inclusive growth. The Government can take steps to plug some gaps to enhance its efficacy further.

What is Direct Benefit Transfer (DBT)?

The Direct Benefit Transfer (DBT) programme was launched on January 01, 2013. It was initiated with the goal of **improving the delivery system** of the welfare initiatives of the Government of India and reforming the procedures of existing social schemes. The program has aimed at **transfer of subsidies and cash benefits directly to the people through their Aadhaar seeded bank accounts**. While launching, it was hoped that crediting subsidies into the bank accounts would **substantially reduce leakages**, and **associated delays**. Earlier the funds flowed through a multiple layers of administrative offices till it reaches the end beneficiary, invariably leading to delays. DBT has eliminated the extra layers.



Source: National Informatics Centre

What are the components and types of schemes covered under the Direct Benefit Transfer (DBT)?

Components

Primary components in the implementation of DBT schemes include: **(a)** Beneficiary Account Validation System; **(b)** A robust **payment and reconciliation platform** integrated with RBI, NPCI and Beneficiary Banks (Public/Private Sector Banks, Regional Rural Banks and Cooperative Banks). It includes the Core Banking Solutions of banks, Settlement Systems of RBI, Aadhaar Payment Bridge of NPCI.

Types Of Schemes

Cash Transfer: Under the cash transfer scheme of Direct Benefit Transfer, the Government directly transfers the money to the individual beneficiaries. The cash transfer is undertaken through: **(a)** Direct transfer to beneficiary account by Union Government; **(b)** Transfer through State Treasury Account; **(c)** Cash transfer by implementing agency of the Government.

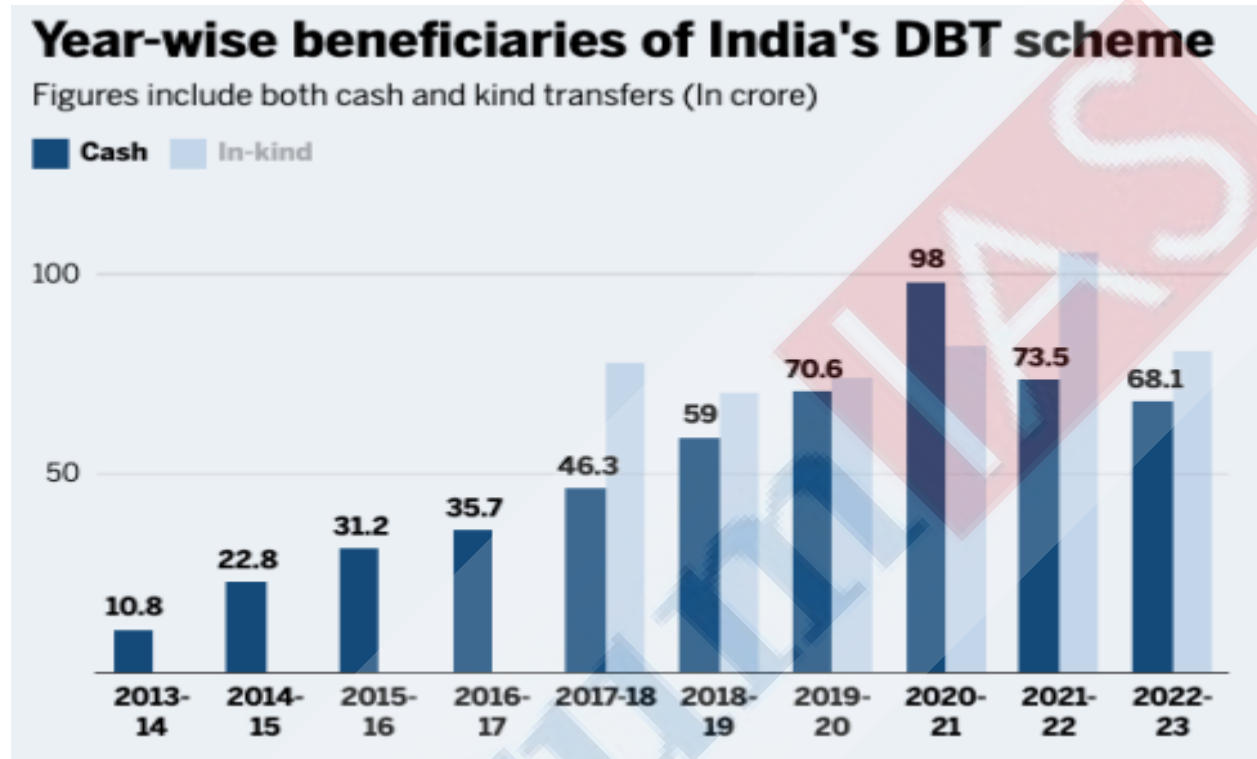
Funds transferred via DBT in FY23

Government data for FY22-23

Scheme	Total Direct Benefit Transfer (In Rs crore)
PAHAL	3,897.19
MGNREGS	24,736.5
NSAP	1,548.76
SCHOLARSHIP SCHEME	1,692.21
PMAYG	28,947.77
PDS	100,406.0
FERTILISER	72,961.97
OTHERS	63,911.16
Grand Total	298,101.62

Source: The Times of India

In-Kind benefit transfer: In-kind benefit transfer is a scheme of Direct Benefit Transfer where the Government offers benefits to the beneficiaries in kind either directly or through their implementing agencies. Here, the Government incurs the expense of procuring a subsidy or benefit. For instance, the Government will buy a particular product, say food grains and offer it for public distribution.



Source: The Times of India

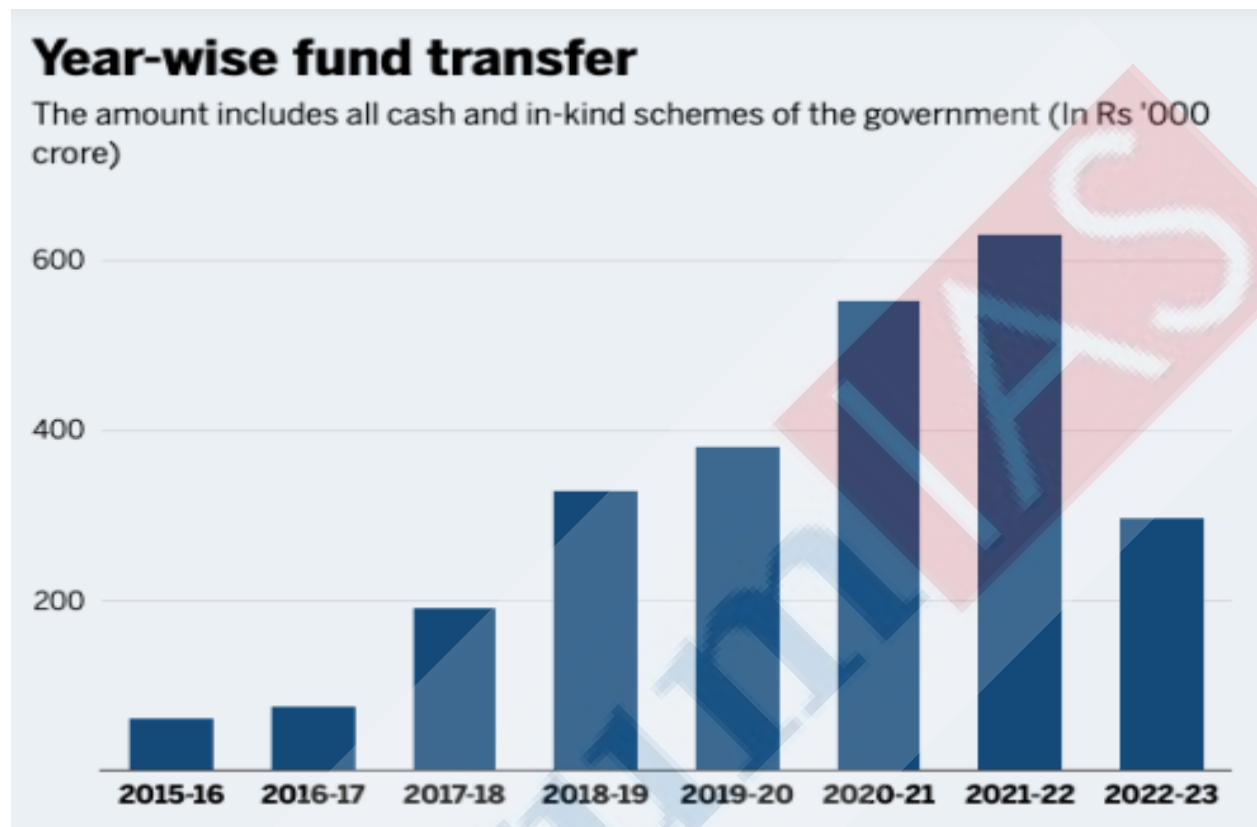
Other transfers: Other than cash and kind transfers, the Direct Benefits Transfer scheme also transfers funds and subsidies to several non-governmental functionaries that help implement government policies until the very end. This includes community workers, NGOs, teachers in aided schools, etc. They are not beneficiaries but are given training, wages, and incentives to serve the beneficiaries.

What are the advantages of Direct Benefit Transfer (DBT)?

Good Governance: (a) It has brought **transparency** and **reduced instances of pilferage** from the distribution of Central Government-sponsored funds; (b) Disbursal based on **verification of biometric identity** through Aadhar has reduced fraudulent and duplicate beneficiaries; (c) The Direct Benefit Transfer (DBT) programmes have provided for **time-bound transfers** of benefits, which has helped recipients **avoid delays** in the transfer of money. This was one of the most significant challenges they faced earlier.

Benefit to the Economy: (a) As the subsidies and benefits are being transmitted directly, DBT scheme has eliminated the need for intermediaries and rentals for 'fair pricing' shops etc. This is proving to be beneficial to the Indian economy as a result of the reduction in structural expenditures; (b) It is no longer a concern that middlemen are taking subsidised grains and selling them on the market; (c) It is also expected that the amount of money that is being circulated will be raised, which has the potential to result in a large rise in the GDP.

Digitalisation or Cashless Economy: (a) DBT is assisting India in accelerating its transition toward a cashless economy; (b) The prospect of receiving money directly has motivated people to open bank accounts and also acting as a driver in promoting savings.



Source: The Times of India

What steps can be taken to improve the Direct Benefit Transfer (DBT) further?

A private sector consulting firm has suggested some measures to further enhance the effectiveness of the DBT.

First, India has created a strong Direct Benefit Transfer (DBT) system, but there is a need to focus more on **user-centricity**. The Government should include women, persons with disabilities, and other traditionally excluded/vulnerable groups in the design process (following the 'Principles of Digital Development'). The system should address common **consumer risks**, such as **unreliable network** or service, **complex user interfaces**, and inadequate payment processes that force recipients to ask others for assistance and share personal information.

Second, despite efforts by Government, it was found that several beneficiaries were not aware of their entitlements and missed out on benefits. Governments should adopt a **strategic approach to Awareness, Communication, and Outreach (ACO)** for G2P (Government to Person) programs. The Government should have dedicated campaigns keeping in mind low level of literacy among beneficiaries. Moreover, Beneficiaries should be given the opportunity to provide feedback on the programme as well as the manner in which benefits are distributed. This would enable the Government to take corrective steps in case of any gaps.

Third, During times of crises (like COVID-19 pandemic), it is more **beneficial to ramp up already established programmes** rather than launching new support schemes. The

beneficiaries are already aware of the programme and the process. To make this more efficient, a dynamic database (updated on real-time basis) of social safety programmes that are categorised according to families and segments, such as occupation, gender, condition, and income level should be maintained.

Fourth, A survey found that ~10% DBT beneficiaries avail benefits through Banking Correspondents (BCs). To ensure the efficiency of service delivery and offer proper monetary incentives, the Union and State Governments, and financial institutions should **monitor the functioning and incentive structure of BCs** on a regular basis. Governments and Banks should **ensure adequate compensation for BCs**, motivating them to improve last-mile payment delivery. Furthermore, it should assist them in establishing confidence with their customers in order to do more transactions.

The Governments should also **allow BC agents to 'white-label' their services to multiple banks**, which means BCs can sell products from multiple banks to a customer. This will help in **enhancing reach and last-mile delivery**.

Fifth, Governments should **deliver cash benefits at the doorstep** while ensuring correct targeting. Doorstep delivery of cash benefits has been instrumental in providing a safety net to those who cannot travel to access points (like the elderly, differently-abled, and women customers constrained by safety concerns or regressive social norms).

Sixth, Governments should create an **enabling environment and promote the use of the digital payments**. This will allow beneficiaries to use the benefit amount without visiting a withdrawal point, which would save them time and cost. Again, the facility will help the elderly, women and differently-abled beneficiaries.

Seventh, the Government should **design a robust beneficiary-centric grievance resolution mechanism**. The current DBT architecture lacks an effective mechanism for customers to resolve grievances like non-receipt of funds or transaction failure. Between April-June 2020 ~1.47% of 830 million (i.e. ~12 million) transactions failed. Technology solutions should be developed to identify, monitor and rectify issues like transaction failure or delays. Beneficiaries should be provided with simple process to raise grievance and implementing agency responsible for the transaction failure or delays should resolve the issues immediately.

Conclusion

During the COVID-19 pandemic, the Government of India used the DBT system to transfer US\$ 3.9 billion (INR 282 billion) to 318 million beneficiaries two weeks after announcing the PMGKY program. Overall, the Government of India deposited US\$ 9.3 billion (INR 680 billion) in the bank accounts of over 420 million beneficiaries under PMGKY. This large-scale transfer showed the robust nature of the cash transfer system in India and ensured **timely, efficient, and convenient transfers during the pandemic**. No wonder the global agencies have praised the Government's efforts. Now the Government should further enhance the efficacy of the Direct Benefit Transfer programme, eliminate the loopholes like transaction failures and make the system completely foolproof.

Syllabus: GS II, Government policies and interventions for development in various sectors and issues arising out of their design and implementation; Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes.

Source: [Indian Express](#), [The Times of India](#), [National Informatics Centre](#), [Microsave](#)

[Kurukshehra October Summary] Skills for Agri-Entrepreneurship – Explained, pointwise**Introduction**

Agriculture offers several opportunities for entrepreneurship. There are many new prospects in the agribusiness sector like packaging, provision of raw materials, exports of agricultural products and other related industries. High-skilled workers' perspectives are changing as a result of increased micro-financing, relaxed government regulations, access to cutting-edge technology and guidance in agri-related fields. As a result, many youngsters are choosing to work for themselves in agriculture and allied sectors and exploring new opportunities in agri-entrepreneurship.

Concept of Entrepreneurship

The term 'Entrepreneur' is derived from French verb 'Entreprendre' which means 'to undertake'. In early 16th century, the Frenchmen who led military expeditions were referred as entrepreneurs. Joseph Schumpeter (an Austrian Economist) popularised the term Entrepreneurship in 1930s. He defined entrepreneur as an individual who **introduces something new in the economy** – a method of production not yet tested, a product with which consumers are not yet familiar, a new source of raw material or of new market.

Entrepreneurship is the process of **identifying opportunities in market place, arranging the resources** required for pursuing these opportunities (i.e., convert an idea into a product or service to market) and **investing the resources** to exploit the opportunities for a long-term gain. Entrepreneurs are being considered an important instrument for initiating and sustaining socio-economic development.

Entrepreneurs perform several functions which are broadly categorised as innovation, risk bearing, organisation and management function. It encompasses idea generation, determining objectives, raising funds, procurement of machinery and raw materials, market survey, determination of form of enterprise, manpower recruitment and operating the enterprise.

Agri-Entrepreneurship

Agriculture used to be viewed as a **low-tech industry** dominated by small farm enterprises that were mostly concerned with improving the ongoing practices rather than looking for innovations to doing new things. However, after the economic liberalisation and a rapidly changing society, this situation has changed dramatically over the last two decades. Agricultural enterprises must adjust to market instability, **shifting consumer preferences**, rigorous **environmental restrictions**, new **product quality standards**, **sustainable food standards**, and other factors. Due to these changes entrepreneurship and more innovations are now possible.

Agricultural entrepreneurs undertake business related to agricultural activities; some entrepreneurial areas in agriculture are farming, product marketing, inputs marketing, and processing of agricultural produce. Agriculture offers tremendous opportunity for entrepreneurship, but this potential can only be realised through efficient management of agri-elements like soil, seed, water, and market demands.

Advantages of Agri-Entrepreneurship

Agri-entrepreneurship has the ability to **contribute to social and economic development**, including **job creation**, **poverty reduction**, **improved health and nutrition**, **increased food security**, and **improving rural economy**.

The solution to **reducing the burden of agriculture, generating employment opportunities for rural youth, preventing rural-to-urban migration**, raising the national income, **sustaining industrial development in rural areas**, and easing pressure on urban areas can be achieved

through agri-entrepreneurship. It helps small farmers become more productive profitable, and marketable on a local, national, and global scale. It encourages business opportunities in both urban and rural areas, accelerates growth, and diversifies income.

Opportunities in Agri-Entrepreneurship

The scope and potential in agri-entrepreneurship have greatly increased as a result of the **WTO's policy reforms, globalisation of trade and agriculture** as well as national policy reforms. This has increased corporate interest in this industry.

Agriculture offers several opportunities for entrepreneurship.

Agro-Produce Processing Units: In these facilities, no new products are manufactured; instead, only agricultural produce is processed e.g., mills for grinding grains (rice, wheat), pulses, etc.

Agro-Produce Manufacturing Facilities: In these facilities, completely **new goods are created** using agricultural products as the primary raw material like bakeries, straw board factories, and sugar factories.

Agro-Input Manufacturing facilities: Items are produced for either mechanising agriculture or expanding manufacturing facilities e.g., fertiliser production units, agricultural tool manufacturing units, etc.

Agro-Service Centres: These include the stores and repair facilities for farm equipment, implement, and machinery.

Miscellaneous Areas: The establishment of apiaries, feed processing facilities, seed processing facilities, mushroom production facilities, goat rearing, organic vegetable and fruit retail outlets, bamboo plantations, may be possible in these areas.

Factors of Entrepreneurship

Several factors contribute to the success of an enterprise, including the entrepreneur's organisational, marketing, and human relations strategies. Market, methods, team, and company are some of the influential factors of entrepreneurial success.

Four distinct factors influence entrepreneurship: **economic development, culture, technological development, and education**. These factors may have an impact on the emergence of entrepreneurship in both positive and negative ways. The economic environment has the most immediate and direct effect on entrepreneurial activity.

Economic factors are capital, labour, raw materials, market and infrastructure.

Social factors include family background, education, attitude of the society, and political support.

Psychological factors refer to motives, need for achievement, status and respect.

Core Competencies and Skills

Specific traits and abilities are needed to pursue agri-entrepreneurship, and these may be acquired through training, and preparation. Planning, implementation, and control are the three key facets of farm management that need knowledge and proficiency from farmer-entrepreneurs. They also need information on input supply, financial services, transportation, packaging, marketing, and consulting services, as well as primary production, harvesting, processing, wholesaling, and retailing.

Essential entrepreneurial attributes for an agri-entrepreneur are initiative, ambition, concentrated problem-solving, creative thinking, taking chances, flexibility and adaptation, interpersonal skills, networking, and a willingness to learn.

Need for Achievement: Entrepreneurs have a strong drive to succeed in their business and in life. Their aspirations go well beyond merely reaching one target; instead, they are always striving to surpass it.

Technical Expertise: An entrepreneur is fully knowledgeable about all the technical aspects of his/her enterprise including technology, operations, finances, or market dynamics. Entrepreneurs are curious about new things. They make the effort and take decision to look into the unforeseen.

Innovativeness: Entrepreneurs don't always adhere to the traditional guidelines. They are constantly looking for fresh opportunities to expand. They build new things and come up with ideas through imagining solutions to issues.

Independence: An entrepreneur frequently finds it challenging to work in a regulated setting due to their desire for freedom to make decisions. Entrepreneurs require independence in their job and decision-making.

Risk Bearing Ability: Entrepreneurship is inextricably linked to risk. Entrepreneurs who take reasonable risks (moderate risk/calculated risk) outperform those who take excessive or no risks at all in terms of returns on their assets. The entrepreneur accepts future uncertainty while reducing risk by preparation, skill development, and research.

Leadership Ability: Entrepreneurs exemplify leadership traits. They have good communication skills, are good decision-makers, good planners, organisers, and motivators who take the initiative to carry out plans and are goal-oriented.

Human Relations Skills: In order to gain customers' trust for their goods and services, entrepreneurs need to get along well with their customers. To manage their business profitably, they must also maintain strong ties with their employees.

Diligent: Entrepreneurs are very hard-working and put up a lot of effort to see a business venture through to success. They continuously work toward achievement and are aware that there is no replacement for putting in a lot of effort.

Self-confidence: Entrepreneurs have faith in their abilities to face uncertainties.

Flexibility: Entrepreneurs need to be adaptable to shifting markets, trends, technology, laws, and regulatory frameworks, as well as shifting economic conditions.



Source: Kurukshetra October 2022

To be successful in an agri-entrepreneurship, a farmer must be able to blend their managerial, technical, and entrepreneurial skills in practice. The three key technical aspects that demand expertise are managing inputs, production, and marketing. Entrepreneurial and technical competencies must be supported with managerial competencies in diagnosis, planning, organising, leading, and managing.

Skills for Agri-entrepreneurs

Global Forum for Rural Advisory Services (GFRAS) in its Guide on Agricultural Entrepreneurship has listed different skills required by agri-entrepreneur.

- **Aligning business objectives** with the value proposition.
- Identifying a value proposition that **meets customers' requirements** and preferences.
- **Situational analyses** by collecting, arranging, analysing, and interpreting information.
- **Diagnosing problems** and finding their pertinent causes.
- Evaluating and contrasting potential solutions to a given problem.
- Forecasting.
- Estimating the work and time necessary to execute jobs.
- Implementing, monitoring and evaluating activities.

Created by | ForumIAS®

Market analysis is one of the important functions of an agri-entrepreneur who needs to have several skills for it such as critical thinking, system analysis, operations analysis, decision-making, problem-solving, coordination, and communication abilities. An agri-entrepreneur would require negotiating skills in order to negotiate with all stakeholders and arriving at a common ground, reasonably addressing concerns of all parties. This avoids log-jam and ensure continuity.

Production and Operation Skills for Agri-entrepreneurs

- Selecting, designing, running, managing, and updating the agricultural production system.
- Planning on a short- and long-term basis for what and how to produce.
- Making choices about the timing of production processes, such as sowing based on seasons, soil types, methods of sowing, fertility.
- Arranging the resources and raw materials required for agricultural production process.
- Coordinating and managing production processes.
- Choosing and operating farm equipment and machinery.
- Designing the workflow from arranging inputs (e.g., seeds, fertilisers, pesticides,) to packaging of produce and sale of agricultural produce.
- Production process monitoring and appraisal.
- Resolving difficult issues that may arise during production.

Created by | ForumIAS®

Skill Development Initiatives

Various Government bodies and institutes are engaged in training, consultancy, research, etc. in order to promote entrepreneurship and skill development. These include: **(a)** National Institute of Micro, Small and Medium Enterprise (NIMSME), Hyderabad under Ministry of Micro, Small and Medium Enterprises; **(b)** Indian Institute of Entrepreneurship (IIE), Guwahati; **(c)** National Institute for Entrepreneurship and Small Business Development (NIESBUD), Noida; **(d)** National Skill Development Corporation; **(e)** National Skill Development Agency; **(f)** National Skill Development Fund under Ministry of Skill Development and Entrepreneurship.

NABARD has been partner of Government in implementing **schemes for agri- entrepreneurship** like: **(a)** New Agricultural Marketing Infrastructure (AMI) sub scheme of Integrated Scheme for Agricultural Marketing (ISAM); **(b)** Agri Clinics and Agri Business Centres Scheme (ACABC); **(c)** National Livestock Mission Entrepreneurship Development and Employment Generation (NLM-EDEG); **(d)** Dairy Entrepreneurship Development Scheme (DEDS); **(e)** Commercial production units of organic inputs – National Project on Organic Farming (NPOF).

Ministry of Agriculture and Farmers' Welfare, Government of India under revamped **Rashtriya Krishi Vikas Yoiana** has launched a new Scheme named **Innovation and Agri-Entrepreneurship Development** to **promote agri-entrepreneurship** and agribusiness by providing financial support and nurturing the incubation ecosystem.

Initiative for Development of Entrepreneurs in Agriculture (IDEA) under (NEDFL Schemes) **Ministry of Development of North Eastern Region** intends to promote agri-business ventures in the North East Region and assist in establishing agri-business as a profitable venture. It also provides gainful employment opportunities and makes available supplementary sources of input supply and services.

Way Forward

Agri-entrepreneurship is essential to transform subsistence activities into profitable business ventures. Aspiring agri-entrepreneurs must be equipped with appropriate resources in order to enable them to exploit opportunities in the agriculture and allied sectors. Extension and agro-advisories can be utilized to promote group entrepreneurship by organising group of entrepreneurs and establishing linkages along the value chain. This can help create new livelihood opportunities, ensuring improvement in farm productivity and raising rural income levels, thus ensuring a balanced and inclusive growth.

Source: Kurukshetra October 2022

Ban on Conversion Therapy – Explained, pointwise

Introduction

The National Medical Commission (NMC) recently sent a letter to all of the State Medical Councils in India. In the letter, it has declared that Conversion Therapy is illegal and has classified it as a 'profession misconduct'. It has also granted the State organisations the authority to take disciplinary action against medical practitioners who violate the norms. The NMC has acted in compliance with a decision from the Madras High Court to publish an official notification naming conversion therapy as a breach of the Indian Medical Council (Professional Conduct, Etiquettes, and Ethics) Regulations, 2002.

What is Conversion Therapy?

Conversion therapy is also known as reparative therapy. It is an intervention that aims to **change the sexual orientation or gender identity** of an individual through the use of methods like psychiatric treatment, psychotherapy (talk therapy), drugs, exorcism, or even violence. The goal of the therapy is to **make the individual a heterosexual**. Conversion therapy also includes efforts to transform the basic identity of young people whose **gender identity contradicts their sexual anatomy**.

According to the British Psychological Society (BPS), conversion therapy is also called 'gay cure therapy'. In practice, it means trying to stop or suppress someone from being gay, or from living as a different gender than the sex they were born as. The BPS and the Royal College of Psychiatrists (the UK) have warned that all kinds of conversion therapy are 'unethical and potentially harmful'.

Psychotherapy: It includes Talk therapy, behavioral, interpersonal, or cognitive therapies. Some **teach stereotypical masculine and feminine behaviours** or use hypnosis to try to change thought patterns for same-sex attraction. Another commonly used method is called '**aversion therapy**'. In this practice, people are exposed to painful or uncomfortable sensations like electric shocks and nausea- or paralysis-causing drugs. This is done in hopes of forming a negative association with the person's attractions or identity to 'correct' it.

Medical: This includes medicine, **hormonal or steroid therapies**. In extreme cases, gender-affirming surgeries are done to 'neutralise' sexual orientation especially among transgender people.

What are the issues with Conversion Therapy?

The American Academy of Child and Adolescent Psychiatry (AACAP) has pointed out several issues with the Conversion Therapy.

Incorrect assumption: The therapies used in conversion therapy are given under the incorrect assumption that homosexuality and different gender identities are a health or mental defect that can be cured. They are not and the lack of disorder means that conversion or any other similar intervention is not required.

Unhealthy and Hazardous: Conversion therapy runs the danger of developing or aggravating mental health disorders like anxiety, stress, and drug use, which can occasionally even result in suicide. There is proof that these procedures hazardous. As a result, 'conversion therapies' shouldn't be used to treat children and adolescents for behavioural health issues.

Lacks scientific credibility: Such 'conversion treatments' lack scientific legitimacy and clinical efficacy because they are imposed with the goal of promoting a specific sexual orientation and/or gender as a desirable outcome.

Treatment by Quacks: In most cases, the treatment is provided by quacks who have very little experience in effectively addressing the problem. They end up doing psychological or physical harm to the 'patients'.

What was the ruling of Madras HC regarding Conversion Therapy?

A homosexual couple had petitioned before the Madras High Court against the forced 'conversion therapy' they were made to undergo by their families to 'cure' them. In June 2021, the Madras High Court issued a slew of interim guidelines for the Police, Union and State Social Welfare Ministries, and the National Medical Commission to '*ensure their (of homosexual couple) safety and security to lead a life chosen by them*'.

The ruling prohibited any attempt to medically 'cure' or change the sexual orientation of LGBTQIA+ (lesbian, gay, bisexual, transgender, queer, intersex, asexual or of any other orientation) people.

It urged the authorities to take action against 'professional[s] involving themselves in any form or method of conversion therapy' which could include the withdrawal of their licence to practise medicine.

In July 2022, the Madras HC further directed the National Medical Commission to '*issue necessary official notification by enlisting "Conversion Therapy" as a professional misconduct*'. The NMC issued the directive to state medical councils in August 2022.

The Madras High Court ordered the police not to subject consenting adults (belonging to the LGBTQIA+ community) to harassment.

The Court also asked the Ministry of Social Justice & Empowerment to compile a list of NGOs and other organisations that could address the community's problems.

The Court also ordered agencies to abide by the **Transgender Persons (Protection of Rights) Rules, 2020**, and the **Transgender Persons (Protection of Rights) Act, 2019**, in letter and spirit. The Court ruled that it was crucial to **hold sensitisation campaigns** in an effort to fully comprehend the community and its needs.

What should be done going ahead?

Legal Basis

First, It is imperative that the recommendations made by the Madras High Court be put into action. India can also learn from the countries like Germany, Canada, Malta, Australia, and the US that have enacted **legislation prohibiting conversion therapy**.

Second, The Mental Healthcare Act prohibits medical treatment without agreement. It can be amended to include conversion therapy as well. This is because victims may consent to conversion therapy because they have ‘internalised’ a mistaken idea that ‘they are abnormal’.

Change in curriculum

According to the opinions of several experts, educational institutions like schools and colleges need to make modifications to their curriculum. Adolescents can be sensitized about gender identities when they are attaining maturity. Even today, homosexuality is classified as a ‘perversion’ and ‘an act of mental degenerates’ in many medical books.

Sensitisation

First, People who have diverse sexual orientations or gender identities frequently share traumatic accounts of being bullied, discriminated against, stigmatised, and socially excluded from their communities. This needs to be addressed.

Second, the initial point of misunderstanding and abuse often begins at home. Teenagers are compelled to opt for ‘conversion’ therapies. Parents also need to be made aware of the issues surrounding sexual orientation and gender identity.

The sensitization can be done through educational institutions, dedicated awareness campaigns and the involvement of civil society.

Conclusion

The Supreme Court’s decision (2018) to decriminalise homosexuality by striking down Section 377 of the Indian Penal Code was a first step toward inclusivity. The notification issued by the NMC is another step in the right direction. However, there is still a lot to be done before the members of the LGBTQAI+ community can consider themselves to be in a more secure environment. The next step should be to bring about attitudinal change in the society through sensitization. This will help create a truly inclusive society.

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

Lancet Countdown on Health and Climate Change – Explained, pointwise

Introduction

Climate change is the greatest global health threat facing the world in the 21st century. Lancet Countdown is an international, multidisciplinary collaboration, dedicated to monitoring the **evolving health profile of climate change**. It provides an independent assessment of the delivery of commitments made by governments worldwide under the Paris Agreement. It is published annually by the medical journal The Lancet. The 2022 Report ‘Lancet Countdown on Health and Climate Change: Health at the mercy of Fossil Fuels’ has revealed that governments and companies continue to follow strategies that increasingly threaten the health and survival of all people alive today, and of future generations. The report has highlighted that the continued dependence on fossil fuels is compounding the health impacts of the multiple crises the world is facing including the fallouts of the COVID-19 pandemic, the war in Ukraine, the cost of living crisis, and climate change. The Report has findings and recommendations related to 5 broad aspects: **(a)** Health hazards, exposures, and impacts; **(b)** Adaptation, Planning, and Resilience for Health; **(c)** Mitigation Actions and Health Co-benefits; **(d)** Economics and Finance; **(e)** Public and political engagement.

Health Hazards, Exposures, and Impacts

Assessment

With an average global surface heating of 1.1°C, climate change is **increasingly affecting mental and physical health**. Changing climatic conditions are: **(a)** Increasing the risk of **heat-related illness**; **(b)** Changing the pattern of **infectious disease transmission**; **(c)** Increasing health risks from extreme events like heatwaves; **(d)** Putting sanitation at risk; **(e)** Having multidimensional impacts on **food and water security**. These impacts often occur simultaneously, exacerbating the pressure on health and health-supporting systems. The simultaneous occurrence can potentially trigger cascading impacts on the social and natural systems that control good health.

With the world projected to heat by 2.4–3.5°C by 2100, there is a need for greater urgency to accelerate mitigation and adaptation to prevent the devastating health outcomes of a heating world.

Indicators

The Report also points out increasing exposure to heat waves e.g., in 2021, heat exposure led to the loss of 470 billion potential labour hours, a 37% increase from the period 1990–99. **87% of the losses in low HDI countries were in the agricultural sector.**

Heat-related mortality for people older than 65 years increased by approximately 68% between 2000–04 and 2017–21.

29% more global land area was affected by extreme drought for at least one month in a year in 2012–21 than in 1951–60.

Heatwave days were associated with 98 million more people reporting moderate to severe food insecurity in 2020.

Adaptation, Planning, and Resilience for Health

Assessment

The Report points out that there are **some signs of progress in the adaptation to climate change**. The national and city-level assessment of the climate-related health risks are gradually increasing. There is evidence that suggests that the strengthening of health systems might have reduced the impact of extreme events.

However, data show that **the pace and scale of climate change adaptation, planning, and resilience is far from what is necessary to reduce the health impacts of climate change**. Despite increasing temperatures, only 27% of urban centres have at least a moderate level of greenness, and just 28 (33%) of 84 countries report having **heat-related early warning systems for health**. Funding to support health adaptation remains grossly insufficient and is seldom influenced by vulnerability and adaptation assessments.

In 2022, unprecedented global health, economic, and conflict events have **critically worsened public health**. Climate change has exacerbated the impacts of many of these events. Without global coordination, transparency, and cooperation between governments, communities, civil society, businesses, and public health leaders, the world will remain vulnerable to international emergencies. The gap between the health impacts of climate change, and adaptation investment and implementation continues to increase, to the detriment of all.

Indicators

In 2021, only 51% of countries (48 out of 95) reported having completed a climate change and health vulnerability and adaptation assessment. However, these assessments strongly impacted resource allocation in less than 10% (9) of the countries.

Only 49 out of 95 countries have a **National Health and Climate Change Plan** in place in 2021.

Less than 40% of countries had climate-informed **health surveillance systems** in place for vector-borne, waterborne, or airborne diseases.

Despite helping to prevent heat-related illness, **air conditioning was also responsible for 0.9 gigatonnes of CO2 emissions** and 24,000 deaths were attributable to PM2.5 exposure in 2020.

149.6 million people were settled less than 1 metre above the current sea level. They are living in regions increasingly at risk from the hazards of the rising seas.

Mitigation Actions and Health Co-benefits

Assessment

After COVID-19 pandemic lockdowns were lifted and restrictions were eased, **CO2 emissions rebounded to record levels in 2021.** With each year that global greenhouse gas emissions do not fall, reaching net-zero by 2050 becomes more challenging, putting lives at increased risk from climate change.

The energy crisis has been worsened by war in Ukraine. It has threatened to deteriorate the energy situation, and has undermined progress and **exacerbated energy poverty.** However, increasing energy efficiency, conservation, and the use of renewable energy sources could give healthier, more resilient, and self-sufficient energy systems. Millions of lives could be saved each year by accelerating transition to cleaner fuels, healthier diets, and active modes of travel.

Indicators

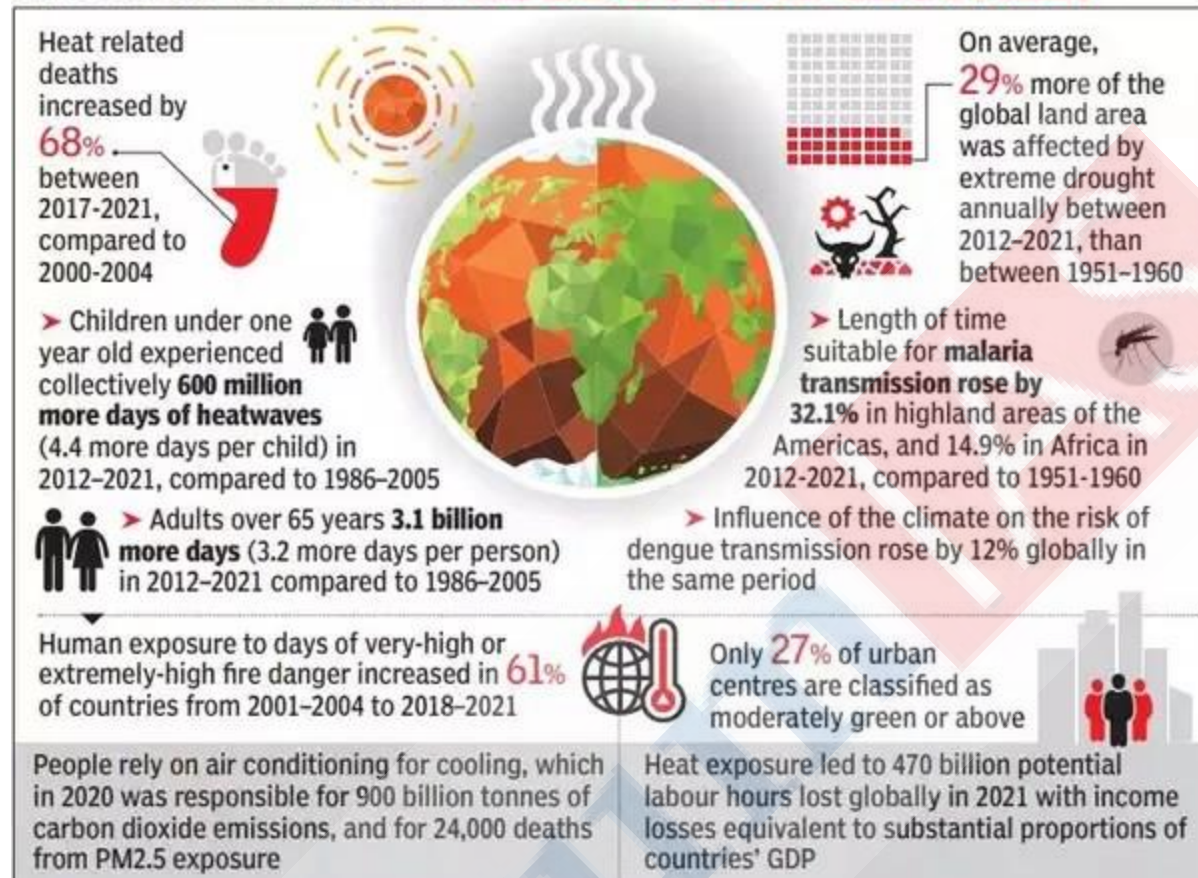
The **carbon intensity of the global energy system decreased by less than 1% since 1992.** Energy-related emissions reached a record high in 2021.

Despite improved access to clean fuels, biomass accounted for 31% of global household energy in 2020 and fossil fuels accounted for 26% .

Exposure to ambient anthropogenic PM2.5 contributed to **3.3 million deaths in 2020**, of which 1.2 million were directly related to the **combustion of fossil fuels.**

Use of fossil fuels in road transport decreased by 0.8% in 2019, whereas use of electricity increased by 15.7%.

RISK OF DENGUE ROSE BY 12% GLOBALLY



Source: *The Times of India*

Economics and Finance

Assessment

The **economic impacts of climate change are affecting livelihoods** and the socioeconomic conditions that **good physical and mental health** depend on. Substantial and sustained investment in the low-carbon transition is essential to minimise these impacts for a healthy future. Both Governments and the private sector have crucial roles in making this happen. Investments and employment are slowly transitioning from fossil fuels to clean energy, and divestment from fossil fuel assets is also increasing.

However, the **pace needs to be accelerated** to prevent devastating economic and health impacts of climate change. Yet, **governments continue to incentivise a carbon-intensive and health-harming economy by subsidising fossil fuels**. Fossil fuel subsidies are often comparable to the national health budgets.

Oil and gas companies are on track to exceed their share of maximum emissions compatible with 1.5°C of heating by more than 100% in 2040. Increased regulations, scrutiny, and **accountability mechanisms need to be urgently implemented** to ensure the energy sector aligns its activities with agreed climate targets. Governments worldwide must urgently accelerate this transition, by setting regulations and redirecting investment to a low-carbon, healthy, and energy-resilient future.

Indicators

The monetised value of global heat-related mortality was estimated to be US\$144 billion in 2021, equivalent to the average income of 12.4 million people

The global potential loss of income from reduction in labour capacity due to extreme heat was US\$ 669 billion. The agricultural sector was the most severely affected.

The monetised costs of **premature mortality due to air pollution amounted to US\$2.3 trillion** in 2020, the equivalent of 2.7% of gross world product.

With more than 12 million employees, **direct and indirect employment in renewable energy exceeded direct employment in fossil fuel extraction** for the first time in 2020.

The current strategies of 15 of the largest oil and gas companies would lead to production exceeding their share of levels consistent with limiting the global average surface temperature rise to 1.5°C by 37% in 2030, and 103% in 2040.

Public and Political Engagement

Assessment

Engagement in health and climate change reached its highest recorded level in 2021, with **climate change solutions becoming an increasing focus of health and climate change engagement.**

The COVID-19 pandemic continues to be a major driver of health and climate change engagement. The pandemic also drove engagement by individuals and by government leaders in health and climate change. This raises the question of whether increased engagement is contingent on the pandemic context.

Although health and climate change engagement increased in 2021, there is **more engagement with health and climate change as separate issues.** Similarly, media and scientific engagement in climate change continues to surpass engagement in health and climate change. Despite mounting evidence of the health burden of climate change, **health and climate change have yet to be securely associated in the public, political, and corporate domains that are key to climate action.**

Indicators

Scientific engagement in health and climate change: The number of scientific papers investigating health and climate change increased by 22% from 2020 to 2021.

Government engagement in health and climate change: The proportion of countries referring to the association between health and climate change increased in both the 2021 UN General Assembly (to 60%) and in updated NDC submissions (to 86%).

What are the findings related to India?

First, Climate change is affecting almost every pillar of food security. The duration of the growth season for maize has decreased by 2% (compared to a 1981-2010). Rice and winter wheat have each decreased by 1%.

Second, From 2012-2021, infants under one year old experienced an average of 72 million more person-days of heatwaves per year (compared to 1985-2005). For the same period, adults over 65 experienced 301 million more person-days. This means that, on average, from 2012-2021, each infant experienced an additional 9 heatwave days per year while adults over 65 experienced an additional 3.7 per person.

Third, From 2000-2004 to 2017-2021, heat-related deaths increased by 55% in India.

Fourth, In 2021, Indians lost 2 billion potential labour hours due to heat exposure with income losses equivalent to about 5.4% of national GDP.

Fifth, From 1951-1960 to 2012-2021, the number of months suitable for dengue transmission by *Aedes aegypti* rose by 69%, reaching 5.6 months each year.

Conclusion

The Lancet Countdown on Health and Climate Change observes that gradual progress is being made in the mitigation efforts globally. Health is increasingly getting integrated into the climate change discourse. However, the progress is not commensurate with the pace required to contain the hazardous impacts associated with Climate Change. Hence, there is a need for greater coordination to step-up the efforts at the global level.

Syllabus: GS III, Environment Pollution and Degradation.

Source: [Indian Express](#), [The Times of India](#), [The Lancet](#)

[Kurukshehra October Summary] Promoting Women Agripreneurship – Explained, pointwise

Introduction

Women entrepreneurs, especially women agripreneurs, represent the fastest growing category of entrepreneurship worldwide and India is no exception. By starting the business enterprises, women agripreneurs have demonstrated strong willpower, skills, risk-taking attitude and appetite for hard work, with grit and determination to succeed. Since 2016, the Start-up India, Stand-up India campaigns have gained considerable momentum. In addition, women agripreneurship has enhanced their morale and enthusiasm to do something productive for their family, local community and in turn to the nation.

Since the launch of Startup India initiative by Government of India in January 2016, the growth of start-ups and new-generation enterprises has been manifold. However, the number of women participating in the entrepreneurship activities has been relatively less, when compared to the number of their men counterparts, for variety of reasons. The women's participation in economic activities is about 25%, while they constitute over 48% of the Indian population. **Forbes India Report 2019** indicated that Indian women leaders occupy about 30% of senior corporate leadership positions in India (higher than the global average of 24%), while India gets rank of 113 out of 135 countries in gender equality in overall workforce. According to **Global Women Entrepreneurs Leader Report 2015** by ACG Inc., India has ranked 29 out of 31 countries. Similarly, **World Bank's India Development Report 2018** has revealed that **India has one of the lowest female participation in workforce globally**, with rank of 120 from among 131 countries. Considering the above dimensions and ground realities, there is an urgent need to design the institutional strategies to **support the ecosystem for promoting women entrepreneurship** in general and women agripreneurship in particular, which is essential for the integrated development of India.

Read More: [Female Labour Force in India – Trends and Challenges – Explained, pointwise](#)

Agripreneurship and Women Empowerment

Agripreneurship is the **synthesis of agriculture** (and allied sectors) and **entrepreneurship to generate commercially-viable products and services and high-value businesses and processes**. The agripreneurship comprises of the creation, development, nurturing and expansion of the agri-business enterprises in agri-based and its allied sectors. It includes

entrepreneurial interventions of agri-tech, farming, and marketing of agri-products in organised business practices from comparatively unorganised sector.

Women agripreneurs, represent the fastest growing category of entrepreneurship. Women play a vital role in the integrated development of agriculture and allied sectors. Dr. APJ Abdul Kalam had said that *'Empowering women is a pre requisite for creating a good nation, when women are empowered, society with stability is assured. Empowerment of women is essential as their thoughts and their value system lead to the development of a good family, good society and ultimately a good nation'*.

A Goldman Sachs Report (2018) observed that *"enabling women, particularly as entrepreneurs, benefits future generations because women tend to spend more on their children's education and health, which should boost productivity as well"*.

A Report by the McKinsey Global Institute (2021) observes that the concerted efforts in **minimising the gender gap in workforce participation has the potential to add US\$ 12 trillion to global GDP by 2025**. Women are the future of India's progress, and development, since they possess the multi-tasking skills, are predominantly focused, empathetic and inclusive leaders, while managing any business enterprises.

At present, the woman in India contribute to about 14% of agri-business owners. Various surveys have found that more than 1/3rd of the total agri/rural start-ups are being managed by women agripreneurs. Increasing number of women agripreneurs are significantly contributing for the improved socio-economic growth, sustainable and holistic development of rural areas in India.

Scope and Prospects for Promoting Women Agripreneurship

There is huge scope for promoting women agripreneurship, especially because nearly 70% of agriculture and its allied activities are predominantly managed by women. However, to promote women agripreneurship, there is a need of: **(a)** An institutional support mechanism; **(b)** Access to the quality training; **(c)** Funding opportunities; **(d)** Marketing networks; **(e)** Leveraging the technology through e-commerce platforms; **(f)** Innovative approaches to take their products to the target customers etc.

Women are expected to dominate the workforce-trends and leadership positions in India in the upcoming few decades. The trend is almost similar in case of women agripreneurs. According to a recent report by India Brand Equity Foundation (IBEF), more than **30 million additional women-owned business enterprises are expected to create about 150 to 170 million jobs by 2030**. The economic outlook is projected to grow dramatically as a consequence of this enabling ecosystem of women entrepreneurship.

A significant number of agri-based business opportunities are being exploited in the agro-spheres such as agro-product processing, agri-based food packaging, export of fresh vegetables and fruits, organised retail-supply of agricultural semi processed/processed products etc. This has got significant growth potential due to enhanced availability of institutional micro-finance, enabling regulations by Union/State governments, ease of access to high-tech solutions and trainings workshops on agri-based and its allied aspects. These provisions are progressively transforming the outlook of the agripreneurship industry, with special focus on women agripreneurship ventures. This is significantly bringing the 'inclusive growth of women agripreneurs' thereby promoting the enabling ecosystem of nurturing the variety of agri-enterprises.

Areas /Scope for Women Agripreneurship

S. No.	Agriculture & Allied Activities /Sectors	Products/Output
1	Fruits and Vegetables	Pickles, Salad, Fruits Export, Canned Fruits, Sauce, Juice, Dry fruits, Nuts
2	Cereals and Pulses	Gram Flour, Corn Flour, Wheat Flour, Bajara Flour, Maida, Dal
3	Mushroom Cultivation	Fresh Mushroom, Retail Mushroom, Export Mushroom, Dried Mushroom, Medicines
4	Dairy Products	Yogurt, Saturated Butter, Butter, Ice cream, Milk, Buttermilk, Ghee
5	Bee Keeping (Apiculture)	Honey, Wax, Medicine, Pollen, Cosmetics, Pharmaceutical
6	Floriculture	Religious offering flowers, Festive Flowers, Ornamental Plants

Source: Kurukshetra October 2022

Public Policy Initiatives

Government of India has initiated various programmes and has created dedicated institutions/projects to foster the agripreneurship in India.

Institutionalised Initiatives for Promoting Agripreneurship: The 'Agri-Clinics and Agri-Business Centers Scheme' by the National Institute of Agricultural Extension Management (MANAGE), Hyderabad has provided considerable boost to women agripreneurship. It has provided agri-extension activities and facilitated transfer of technology in agri-based enterprise ecosystem. It has also supported the marketing of agri-based enterprise products/services. A significant number of trained men and women agripreneurs have been able to successfully

establish and manage the agri-based technical/ consultancy extension services to farming community.

Promoting Local Agripreneurs and Agri-Business Incubators (ABIs): The Prime Minister has emphasised on innovative practices and use of technology to nurture the agri-business enterprises. This will create employment in a large scale, ensure social and economic equity, inclusive growth, achieve self-reliance through agri-based start-ups. ‘**Organic Sikkim**’ has been successfully making agri-farmers to earn about 20% higher income by taking away the middlemen and discovering newer markets for their agri-products through Sikkim’s organic retail stores. The stores are predominantly managed by women agripreneurs.

Rashtriya Krishi Vikas Yojana (RKVY): Through the scheme, the Government has been promoting agripreneurship by extending technical and financial support. The Scheme has enabled the localised incubation ecosystem through State Agricultural Universities and ICAR Research Institutions. Agripreneurs are given structured training for 60-days through 29 Agri-Business Incubation (ABI) centres across India.

NABARD Promoted Agri-Entrepreneurship Initiatives: The National Bank for Agriculture and Rural Development, through its District Development Managers (DDMs) at all the districts across India, has been managing a variety of agri-businesses and women agripreneurs enterprises, in partnership with many NGOs, CSR (Corporate Social Responsibility) Projects of corporates and large organisations.

Micro-Finance Institutions (MFIs): The microfinance movement has promoted and nurtured thousands of micro, small and medium women agripreneurs. MFIs have helped transformation of millions of women in the rural India through **Diversity, Equality and inclusion (DEI)** principles.

‘WeACT’ (Women Entrepreneurs Access Connect Transform): It is a national level network of women entrepreneurs, where the interventions undertaken are executed in collaboration with **Entrepreneurship Development Institute of India (EDII)**, Ahmedabad and **Accenture Pvt. Ltd.**, along with many other partners. Till Dec 2021, about 3,651 women enterprises have been nurtured across 14 states in 3 core sectors, (Food and Agro-based Enterprises, Handloom and Handicraft Enterprises and Household Supply Enterprises). The institutionalised capacity building, integrated marketing linkages and digital support systems have enabled them to become **profitable and sustainable**.

The initiatives taken by Government of India has significantly boosted the confidence of women agripreneurs and their holistic approach towards life, self-reliance, socioeconomic empowerment and thereby self-actualisation. This will help in attaining balanced regional development as women agripreneurship is primarily rural-based. This is also **reducing rural-urban migration**, which will improve the economic status of rural women. This has been helping in infrastructure development by creating in situ employment opportunities for others, and also reducing the social discord/evils and overall boost the socio-economic wellbeing by adopting new production systems.

Issues and Challenges

There are several challenges faced by women agripreneurs in starting and managing the growth phases of agri-enterprises.

Women agripreneurs face various challenges during the time of work and implementation like:

- (a) Dual responsibility of home and enterprises;
- (b) Threats from established corporate players;
- (c) Lack of knowledge/market awareness;
- (d) Lack of knowledge in branding, management,

accounting etc.; **(e)** Lack of information source, required skill sets and training; **(f)** Lack of support from the family.

In addition to this, the fear of failure, **low risk-taking capacity**, also act as deterrent to their growth.

The **infrastructure challenges** include: **(a)** Lack of storage and warehousing; **(b)** Lack of electricity; **(c)** Lack of credit facility and finance especially formal finance (for both investment credit and working capital financing). The dependency on money lenders leads to exploitation, when the institutional credit is not forthcoming for managing their business enterprises.

Way Forward

Indian women agripreneurs have been making significant strides of growth in changing/transferring Indian agri-ecosystem. This has been getting expedited owing to enabling policies for start-ups by Government of India, enhanced access to the educational/training programs and digital media, and improved access to funds/credit facilities, grant-in-aid by various agencies like KVIC, CSR Grants by Corporates, etc. The concerted efforts have given a strong boost to the growth of start-up culture and enabling entrepreneurial ecosystem, where the woman agripreneurs are actively supporting the growth of rural economy. It will help in attaining inclusive growth and breaking the gender stereotypes by empowering women and helping in attaining gender equity.

Syllabus: GS I, Role of women and women's organization; GS III, Inclusive Growth and issues arising from it.

Source: Kurukshetra October 2022

CCI (Competition Commission of India): Provisions, Working and Challenges – Explained, pointwise

Introduction

The Competition Commission of India (CCI) recently passed two separate orders against the tech giant Google. The two orders imposed penalty of INR 1337 crore and INR 937 crore (total INR 2274 crore) on Google for abuse of dominant market position. CCI also issued list of corrective measures for Google to comply with. Experts have hailed the order by the CCI as it took on Google. The CCI has been very proactive in addressing the anti-competitive practices of corporations and ensuring fair markets. However, the Commission faces several challenges which must be addressed to enhance its efficacy.

What is the Legal and Institutional Framework regarding the CCI?

Legal Framework

Competition Law for India was triggered by **Articles 38 and 39** of the Constitution of India. These Articles are a part of the Directive Principles of State Policy. Among other things, Article 38 calls for **elimination of inequalities in opportunities for people engaged in different vocations** (professions). Article 39 calls for ensuring that **operation of economic system does not result in concentration of wealth**. Based on the Directive Principles, The **Monopolies and Restrictive Trade Practices Act** (MRTP Act) was passed in 1969. It was India's first Competition Law.

MRTP Act was repealed and replaced by **The Competition Act**. The Competition Act was passed in 2002, on the recommendations of **Raghavan Committee**. In October 2003, the Competition Commission of India (CCI), was established under the provisions of the Competition Act, 2002.

It became fully functional when the provisions of the Competition Act relating to **anti-competitive agreements** and **abuse of dominant position** were notified in May 2009.

Competition Appellate Tribunal (COMPAT) was also established based on the Competition (Amendment) Act, 2007. However, the Government has replaced the Competition Appellate Tribunal with the National Company Law Appellate Tribunal (NCLAT) in 2017.

Composition of CCI

According to the Competition Act, the CCI has a **Chairperson** and **not more than 6 members**. The Chairperson and the members are appointed by the Union Government.

The Commission is a **quasi-judicial body**. It also provides advice to the statutory bodies.

Eligibility of members

According to the Competition Act, 2002, the Chairperson and every other member shall be: **(a)** A person of ability, integrity and standing; **(b)** Who has been, or is qualified to be, a **judge of a High Court**, or **(c)** Who has special knowledge of, and **professional experience of not less than 15 years** in international trade, economics, business, commerce, law, finance, accountancy, management, industry, public affairs, administration or in any other matter which, in the opinion of the Central Government, may be useful to the Commission.

CCI's jurisdiction does not include matters protected by Intellectual Property Rights.

What are the functions of CCI?

First, It is the statutory duty of the Commission to **(a)** Eliminate practices having adverse effect on competition; **(b)** Promote and sustain competition; **(c)** Protect the interests of consumers; **(d)** Ensure freedom of trade carried on by other participants, in markets in India.

Second, Make the markets work for the benefit and welfare of consumers.

Third, Ensure fair and healthy competition in economic activities in the country for faster and inclusive growth and development of economy.

Fourth, Implement competition policies with an aim to effectuate the most efficient utilization of economic resources.

Fifth, Develop and nurture effective relations and interactions with sectorial regulators to ensure smooth alignment of sectorial regulatory laws in tandem with the Competition Law.

Sixth, Effectively carry out competition advocacy and spread the information on benefits of competition among all stakeholders to establish and nurture competition culture in the Indian economy.

Seventh, It may act on a complaint filed by an informant pertaining to an anti-trust activity or may take action suo motu.

Eighth, The Commission is also mandated to give its opinion on competition issues to government or statutory authority and to undertake competition advocacy for creating awareness of competition

What are some major orders passed by CCI?

First, In October 2022, The CCI imposed penalties of INR 936.44 crore and INR 1337.76 crore against Google for **abusing its dominant position** with respect to its **Play Store Policies** and **Android mobile device ecosystem** respectively.

Second, In October, 2022, CCI imposed a fine of about INR 223 crore on **travel portal MakeMyTrip** for entering into preferential pacts with hotel partners.

Third, In December 2021, CCI had imposed a penalty of INR 200 Crore upon **Amazon** due to their failure to notify combination in terms of the obligation cast under 6(2) of the Competition Act. Section 6(2) deals with provision of prior information to the Commission in case of impending merger.

Fourth, In 2015, CCI imposed a fine of INR 258 crores on three airlines (Jet Airways, IndiGo and SpiceJet), for **cartelisation** in determining the fuel surcharge on air cargo.

Fifth, CCI had also ordered probe into the functioning of the **Cellular Operators Association of India** (COAI) in response to the complaint filed by Reliance Jio against the cartelization by its rivals – Bharati Airtel, Vodafone India and Idea.

Sixth, In 2013, CCI imposed a penalty on the **Board of Control for Cricket in India** (BCCI) for **misusing its dominant position**. It was found that the IPL ownership agreements were unfair and discriminatory. The terms of IPL franchise agreements were one-sided and highly in favour of BCCI and the franchises had no say in the agreement.

Seventh, The automotive sector has also been subject to investigations across a wide-spectrum of competition law concerns. Maruti Suzuki, for instance, is being investigated for allegedly imposing resale prices on its dealers. Similarly, Honda is being investigated for its conduct pertaining to vertical restraints by allegedly imposing discount control mechanisms, exclusive supply agreements, tie-in arrangements, and abuse of dominance.

What has been the benefits of CCI?

First, It act as a competition regulator, and an **antitrust watchdog for smaller organizations** that are unable to defend themselves against large corporations. Thus its actions have been effective in ensuring competition which ultimately benefits the consumer and the economy.

Second, CCI has played both administrative and quasi-judicial roles to eliminate practices having adverse effects on competition, promote and sustain competition, protect the interests of end consumers and ensure freedom of trade in Indian markets.

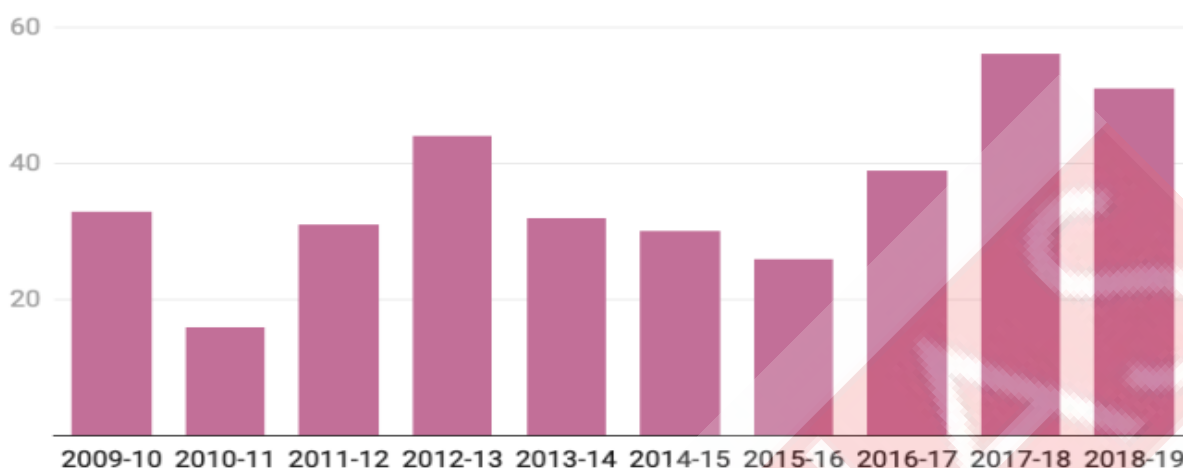
Third, The Commission has also come up with several innovations like the '**green channel**' provision for automated approval on combinations which do not have appreciable adverse effect on competition, and cleared more than 50 of such transactions. Thus, the Commission while ensuring fairness, does support mergers which make economic sense.

Fourth, CCI has conducted several market studies helping dynamics of market/

What are the challenges before CCI?

First, CCI has been called a 'Toothless regulator' by critics. Most of the orders of the CCI are under appeal before the National Company Law Appellate Tribunal (NCLAT) or under challenge in the high courts or the Supreme Court. The CCI has collectively fined companies about INR 13,000 crore between 2011-12 and 2018-19. But it has collected less than 1% of it so far.

Share of anti-competition orders appealed against (%)



Source: Mint. The above graph indicates percentage of CCI's anti-trust orders which end up in appeals. The proportion was 56% in 2017-18 and 51% in 2018-19.

Second, Even though the Competition Act, 2022 represents an improvement from its extremely restrictive predecessor (the MRTP ACT) it remains riddled with loopholes and ambiguities. This creates unnecessary legal uncertainty, which favours lawyers and law firms. For instance, the law allows the CCI to leave some leeway for 'relative advantage, by way of contribution to the economic development'. This may allow large firms to justify their anti-competitive practices in the name of development.

Third, In spheres such as telecom, internet and big-technology, CCI's functions also overlap with other regulatory bodies such as the Telecom Regulatory Authority of India (TRAI). Moreover, to assess and ensure competition in these spheres, CCI will require **staff with specialized knowledge in technology** as well as an understanding of modern industrial economics.

Fourth, there is a need for **new market definition** for digital technologies. Since, there are no boundaries in the digital space, defining relevant market has been a tough task for regulators around the world. With the advent of Web 3.0, AI, IoT, Blockchain and other technological developments, and emergence of issues like data protection and privacy, search bias, platform neutrality, deep discounting, hostile takeovers, confidentiality, etc, the need for a robust competition law, geared to meet the needs of present day techno-legal world becomes vital.

Conclusion

CCI has been proactive in its approach to check anti-competitive practices in the markets. The Commission has taken a bold stand against the practices of global tech giants, where only European Commission had been active till now. However, the Commission must be provided more powers to ensure that it is able to collect penalties imposed. The Judiciary can also refrain from entertaining every appeal against CCI's orders. Such steps can further enhance the efficacy of the Commission in its roles.

Syllabus: GS II, Statutory, regulatory and various quasi-judicial bodies; GS III, Indian Economy and issues related to Growth.

Source: [Mint](#), [Mint](#), [Financial Express](#), [Money Control](#), [PIB](#), [CCI](#)