

ECONOMY

CONTEXT: Indian economy and issues related to planning, mobilization of resources, Effect of liberalization on the economy etc.

ARTICLE SUMMARY

- IMF's semi-annual report, "Navigating Global Divergences," on the world economy 2023 October:
- It has updated its forecasted GDP growth rate for India for 2023–24, moving it up from 6.1–6% to 6.3–3%.

SUMMARY OF THE ISSUE
Projections from the International Monetary Fund (IMF):

- In terms of US dollars, India's economy is currently the fifth largest in the world.
- By 2027, it predicts that India's economy will rank third in the world.
- Among the G20, India has the fastest growth rate, outpacing China's for the past two years.
- According to historical data from the IMF, it took India sixty years, from 1947 to 2007, to surpass the \$1 trillion GDP threshold in 2007.
- India's economy grew from zero to \$2 trillion in just seven years in 2014.
- By 2021, it had added an additional \$1.2 (one plus two) trillion.
- If India achieves the \$5.2 (five point two) trillion target set by the IMF by 2027, it will have added \$2 trillion in just six years.

GDP and individual GDP expressed as a purchase power parity (PPP)

- It establishes the value of a US dollar in that nation.
- India currently ranks third in the world for GDP measured on a PPP basis, with a GDP of \$13 trillion (PPP).
- With a GDP of \$33 trillion, China leads the world. The US comes in second with \$29 trillion.
- PPP conversion ratios can differ significantly between nations.
- There may be large differences in the prices of goods and services.
- India's PPP to dollar conversion ratio is 3.5 (three five), nearly twice as high as China's, which is 7 (one point seven).
- For instance, if one US dollar can purchase a hamburger in its native nation, it can also purchase 3.5 hamburgers in India and 1.7 hamburgers in China
- India has the lowest per capita income among the G20 nations in terms of PPP (\$9,073) and dollars (\$2,601).
- From 1981 to 2016, China's one-child family policy paid off, increasing per capita GDP to \$23,382 PPP.
- At \$80,035, the US has the highest GDP per capita.

Additional forecasts in the IMF report:

- The IMF lowered its forecast for global GDP growth, which included China's, by three percentage points, to 4.2%.
- It is commonly known that the economies that experienced the greatest damage during the COVID-19 pandemic also experienced the steepest recovery.

Estimates concerning India:

- India's GDP decreased by 6.5 percent on a quarter-over-quarter basis in the second quarter of 2020.
- With an output decline of 8.5 (eight point five)% from the year before, the global large economies saw one of the worst contractions in output in 2020–21.
- The real annual GDP growth rate of India decreased from 8.8% in 2016–17 to 2.8% in 2019–20 (adjusted for inflation).
- With ₹1.09 lakh, the real per capita income level in 2021–22 was approximately ₹600 more than that in 2019–20.
- The recovery picked up speed in 2022–2023 as international supply chains were reorganized and domestic supplies were reinstated.

Current concerns:

- India's vulnerability to its massive trade deficit with China has grown, despite a sharp decline in the country's net exports to GDP ratio. Net exports are exports less imports.
- India appears to be structurally dependent on Chinese manufacturers, a situation that is difficult to address with small adjustments in relative prices.
- A third of India's trade deficit and 15%–16% of its imports come from China.
- a consistent reduction in the industrial growth rate, from 13.1 % in 2015–16 to -3.5% in 2019–20 (prior to COVID-19).
- The Index of Industrial Production (IIP) yields the following industrial growth rates: Over an extended duration, it displays a concerning decline.

The Way Ahead

- By adopting a wider and slightly longer perspective, policymakers can reduce their optimism and recognize the dynamic nature of the geopolitical landscape that influences economic policy decisions.
- India's HDI index decreased by one rank between 2015 and 2021, from 0.645 in 2018 to 0.633 in 2021; this indicates that other nations have outperformed India.
- Despite government efforts, the trade deficit with China continues to rise, posing a strategic threat; the decline in industrial output growth rates, particularly in capital goods, is the mirror image of this;
- An analysis by NITI Aayog an impressive decrease in the number of people living in multidimensional poverty in India; between 2015–16 and 2019–21, an estimated 5 (thirteen point five) crore Indians are thought to have escaped multidimensional poverty.
- The National Family Health Survey for 2019–21 offers plenty of proof that a number of indicators pertaining to the following have significantly improved:
- the standard of living in rural areas, such as having access to electricity, better sources of drinking water, and health insurance coverage.
- Because of the government's support for agriculture, the growth rates of fruits, vegetables, "dairy and livestock products combined," and fisheries have never been higher.
- India understands that there is still a long way to go before the majority of its people enjoy a high standard of living and a high income.

ENVIRONMENT**Context: UN reports record-high concentrations of greenhouse gases.****Why in News?**

- The unprecedented increase in greenhouse gas concentrations in the atmosphere that will set new records in 2022 was recently brought to the attention of the UN in a warning.
- The alarming consequences are described in the 19th Annual Greenhouse Gas Bulletin of the UN's World Meteorological Organization (WMO), which predicts higher sea levels, more intense extreme weather events, and higher temperatures as a result.

What are the Major Highlights of the Bulletin?

- Unprecedented Greenhouse Gas Levels: According to the WMO's 19th annual Greenhouse Gas Bulletin, the three main greenhouse gases—nitrous oxide, carbon dioxide, and methane—all have levels that are higher than previously recorded, indicating an increase in their atmospheric presence.
- 2022 saw a considerable increase in carbon dioxide concentrations of 418 parts per million, methane concentrations of 1,923 parts per billion, and nitrous oxide concentrations of 336 parts per billion, respectively, over pre-industrial levels by 150%, 264%, and 124%.
- Approximately 64% of the warming effect on the climate is attributed to carbon dioxide (CO₂), one of the three main greenhouse gases.
- Methane, which accounts for roughly 16% of global warming, is the second most important contributor to climate change.
- It is estimated that nitrous oxide makes up 7% of the warming effect.

Issues with the Paris Agreement

- The 2015 Paris Agreement set a target of keeping global warming to 1.5C, ideally less than 2C over pre-industrial levels. Regretfully, in 2022 the average global temperature rose by 1.15C above pre-industrial levels, crossing the 1.5C threshold already.

The present trajectory points to a dire scenario:

- By the end of the century, global warming will have greatly exceeded the targets set forth in the Paris Agreement, with disastrous effects such as extreme weather, ice melt, and ocean acidification.

Projected Climate Disruptions:

- An increasingly severe future due to these heat-trapping gases is predicted by their steady rise.
- The bulletin emphasizes how urgently fossil fuel consumption must be reduced in order to mitigate these growing risks.
- The climate system may be approaching crucial "tipping points," at which certain modifications trigger irreversible cascades, such as the major ice sheets becoming unstable, the Amazon rapidly dying back, and the slowing of North Atlantic circulation.

Which are the Main Causes of the Increasing Concentration of Greenhouse Gases?**Fossil Fuel Combustion:**

- Burning fossil fuels for energy is the main source of carbon dioxide (CO₂) emissions.
- Coal is largely used in transportation, power generation, and industrial processes, which releases CO₂ into the atmosphere.

Deforestation and Changes in Land Use:

- Forests absorb CO₂ and act as carbon sinks. These sinks are diminished by deforestation and changes in land use, mostly due to urbanization or agriculture, which releases stored carbon and lowers the Earth's ability to absorb CO₂.
- Parts of the Amazon rainforest, which was formerly a major carbon sink, are now major carbon emitters due to deforestation.

Agricultural Practices:

- Methane (CH₄) and nitrous oxide (N₂O) emissions are largely caused by agriculture.
- Methane is produced by raising livestock, and nitrous oxide is released when fertilizers based on nitrogen are used.

Improper Waste Management:

- When organic waste breaks down in anaerobic environments, particularly in landfills, improper waste management produces methane.

Natural Mechanisms:

- GHGs are also released by wildfires, volcanic eruptions, and natural decay processes.
- Although these occurrences have happened in the past, human activity has increased their frequency and significance.

Urbanization and Population Growth:

- As cities expand quickly, more people live there, which raises energy consumption, vehicle emissions, and the need for infrastructure, all of which contribute to increased greenhouse gas emissions.
- Rising temperatures cause permafrost to thaw, which releases methane—a strong greenhouse gas trapped in the frozen soil—when the permafrost breaks.

What Potentially Serious Consequences Could Increasing Greenhouse Gas Concentrations Have?

- Increased greenhouse gas concentrations amplify the greenhouse effect, trapping more heat in the atmosphere and causing induced climate change.
- As a result, there is an increase in global temperature, changing precipitation patterns, and weather patterns that can result in droughts, heat waves, floods, and stronger storms.
- Rising Sea Levels and Melting Ice: As a result of glaciers and polar ice caps melting due to warming temperatures, sea levels are rising.
- This phenomenon increases the risk of flooding and causes coastal erosion by endangering infrastructure, biodiversity, and coastal communities.

- Food and Water Security: Agricultural productivity can be impacted by temperature and precipitation variations, which can result in crop failures and decreased food security.
- A shortage of water or an abundance of rainfall can affect the amount of water available for industry, agriculture, and drinking.
- Ocean acidification: When oceans absorb too much CO₂, it causes acidification, which affects marine life.
- Acidic waters impair some marine organisms' capacity to form skeletons and shells, which has an impact on plankton, coral reefs, and shellfish, which form the basis of marine food chains.
- Geopolitical Tensions: In areas already experiencing socio-political instability, climate-induced displacement, resource scarcity, and competition for habitable areas may result in geopolitical tensions and conflicts over resources, land, and water.

What are the Key Initiatives to Curb Greenhouse Gas Emission?

Global:

- Kyoto Protocol
- Paris Agreement
- International Solar Alliance
- Global Biofuel Alliance

India:

- Bharat Stage-IV (BS-IV) to Bharat Stage-VI (BS-VI) emission norms
- National Action Plan on Climate Change (NAPCC)
- Energy Conservation (Amendment) Act 2022
- India's Intended Nationally Determined Contributions (INDCs)
- Panchamrit Goal

The Way Ahead

- Implement laws and technology aimed at cutting greenhouse gas emissions from industries like transportation, energy, manufacturing, and agriculture as part of mitigation strategies.
- This entails shifting to renewable energy sources, enhancing energy economy, encouraging sustainable land use, and lowering reliance on fossil fuels.
- Adjustment Techniques: Formulate and execute adaptation plans to address the current and anticipated consequences of climate change.
- To withstand extreme weather events and shifting climate patterns, this entails strengthening resilience in urban planning, agriculture, water management, and infrastructure.
- Working Together Internationally: Through international agreements and partnerships, promote commitment to climate action and global cooperation.
- Urge countries to stick to the agreements they have made, such as the Paris Agreement, and to set aggressive goals to reduce the rate of increase in global temperatures.

PRELIM FACT

1. Indira Gandhi Prize for Peace

Context:

The Indira Gandhi Prize for Peace, Disarmament and Development 2022 was jointly awarded to the Indian Medical Association and the Trained Nurses Association of India as representatives of the COVID-19 warriors in the country.

- The Indira Gandhi Prize for Peace, Disarmament and Development was instituted in the memory of the former prime minister by a trust in her name in 1986.
- It consists of a monetary award of 25 lakh rupees along with a citation.
- The award is given to individuals or organisations who work towards ensuring international peace and development, ensuring that scientific discoveries are used to further the scope of freedom and better humanity, and creating new international economic order.

Past recipients of this award include:

- Mikhail Gorbachev, former leader of Soviet Union (1987);

- UNICEF (1989)
- Jimmy Carter, former president of the US (1997)
- UN and its secretary-general Kofi Annan (2003)
- Angela Merkel, chancellor of Germany (2013)
- Indian Space Research Organisation (2014)
- Former Prime Minister of India, Manmohan Singh (2017)
- Sir David Attenborough (2019)
- Pratham NGO (2021)

2. Onattukara Ellu

Context:

Efforts are being made by the Kerala state authorities to expand the cultivation of geographical indication (GI)-tagged Onattukara sesame.

It is cultivated in the state of Kerala.

About:

- Onattukara Ellu and its oil are famous for its unique health benefits.
- Relatively higher antioxidant content in Onattukara Ellu helps in fighting the free radicals, which destroy the body cells.
- It has the high content of unsaturated fat makes it beneficial for heart patients.
- This sesame grown in the region contains high levels of Vitamin E and antioxidants.
- It also contains oleic acid, linoleic acid, palmitoleic acid and so on which help maintain good health.

Key facts about Geographical Indication (GI) tag

- It is a sign used on products that have a specific geographical origin and possess qualities or a reputation that are due to that origin.
- This is typically used for agricultural products, foodstuffs, wine and spirit drinks, handicrafts and industrial products.
- The Geographical Indications of Goods (Registration and Protection) Act, 1999 seeks to provide for the registration and better protection of geographical indications relating to goods in India.
- This GI tag is valid for 10 years following which it can be renewed.

3. Pradhan Mantri Mudra Yojana scheme

Context:

The Union Finance and Corporate Affairs Minister recently said women entrepreneurs are accorded first priority under the Centre's flagship Pradhan Mantri Mudra Yojana scheme.

About Pradhan Mantri Mudra Yojana (PMMY):

- It is a flagship scheme of the Government of India to extend affordable credit to micro and small enterprises.
- Mudra schemes are designed to bring enterprises into the formal financial system or to “fund the unfunded”.
- It enables a small borrower to borrow from all Public Sector Banks such as PSU Banks, Regional Rural Banks and Cooperative Banks, Private Sector Banks, Foreign Banks, Micro Finance Institutions (MFI), and Non Banking Finance Companies (NBFC) for loans upto Rs 10 lakhs for non-farm income-generating activities.

Eligibility:

Any Indian citizen who has a business plan for a non-farm sector income generating activity such as manufacturing, processing, trading, or the service sector and whose credit need is less than Rs 10 lakh can approach either a bank, MFI, or NBFC for availing of Micro Units Development & Refinance Agency Ltd. (MUDRA) loans under PMMY.

Types of loans provided:

Under the aegis of PMMY, MUDRA has already created the following products

- **Shishu:** covering loans upto 50,000/-
- **Kishor:** covering loans above 50,000/- and upto 5 lakh
- **Tarun:** covering loans above 5 lakh and upto 10 lakh

There is no subsidy for the loan given under PMMY. However, if the loan proposal is linked to some Government scheme, wherein the Government is providing capital subsidies, it will be eligible under PMMY also.

4. Fractals

Context:

Physicists use the fractal geometry approach to study quantum systems.

About:

- A fractal is a never-ending pattern.
- Fractals are infinitely complex patterns that are self-similar across different scales.
- Fractal patterns are extremely familiar since nature is full of fractals.
- For instance, trees, rivers, coastlines, mountains, clouds, seashells, hurricanes, etc.
- They are capable of describing many irregularly shaped objects or spatially nonuniform phenomena in nature
- Fractals are useful in modelling structures (such as eroded coastlines or snowflakes) in which similar patterns recur at progressively smaller scales, and in describing partly random or chaotic phenomena such as crystal growth, fluid turbulence, and galaxy formation

5. Greenwashing

Context:

The Advertising Standards Council of India (ASCI) recently proposed guidelines that aim to check Greenwashing in ads.

About Greenwashing:

It is the process of conveying a false impression or misleading information about how a company's products are environmentally sound.

- Greenwashing involves making an unsubstantiated claim to deceive consumers into believing that a company's products are environmentally friendly or have a greater positive environmental impact than they actually do.
- In addition, greenwashing may occur when a company attempts to emphasize sustainable aspects of a product to overshadow its involvement in environmentally damaging practices.
- Companies can also greenwash initiatives with vague claims that don't provide real data or scientific validation for the claims.
- For example, a car vendor claims that a vehicle is eco-friendly because it is more fuel-efficient, while failing to mention or consider the larger industrial impact of vehicle manufacturing on the environment.

ANSWER WRITING

Q. Talk about how important the Indian Ocean Region is to global trade, security, and prosperity. Emphasize the primary obstacles linked to the area as well.

The Indian Ocean is a huge theatre that stretches from the Mozambique Channel in the west to the western coast of Australia and the Strait of Malacca in the east. It extends from the Arabian Sea and Persian Gulf in the north to the southern Indian Ocean. The region's geoeconomic significance can be explained by its size and diversity.

The importance of the Indian Ocean Region to international trade, security, and economic prosperity:

Economics and Trade

- The region is home to 2.6 billion people, or one-third of the world's population. It also handles 80% of the world's oil traffic, 50% of containerized freight, and 33% of bulk cargo.
- The flow of liquid energy around the world depends on the Indian Ocean region as well. Ten states around the Indian Ocean's coast hold about 65 percent of the world's oil reserves.
- The region generates \$1 trillion in products and services in total, with intra-IORA (Indian Ocean Rim Association) trade accounting for about \$800 billion of that total.
- Hydrothermal vents with mineral deposits of copper, cobalt, nickel, zinc, gold, and rare earth elements can be found in the Indian Ocean.
- India leads the region in terms of both import and export volume, and is followed by Singapore, Malaysia, Australia, and Thailand. The GDPs of several nations, notably Singapore, Indonesia, and India, have increased significantly during the previous 20 years.

Protection

- The IOR has great strategic importance due to its proximity to unstable areas of the East African and West Asian continents.
- It is also linked to the well-known SLOCs and the unstable waters off the coast of Somalia, where maritime terrorism and international piracy are still major problems. As a result, the region is essential to the IOR's stability and security.

Challenges associated with IOR

- Due to its importance as a driver of global economic expansion, the Indian Ocean serves as a significant hub for drug smuggling, piracy, and illegal, unreported (IUU) fishing.
- IUU Fishing: According to FAO estimates, 30 percent of the stocks in the Indian Ocean are not being fished at levels that are ecologically viable.
- The global economy bears heavy losses as a result of piracy. An estimated \$7 billion to \$12 billion in damages occur annually as a result of piracy
- Drug Trafficking and Small guns trafficking: Two of the most common marine crimes in the area are drug trafficking and small guns trafficking. The UN Office on Drugs and Crime states that there are two primary ways that drug production affects the Indian Ocean. the "Golden Triangle" and the "Golden Crescent." The eastern coast of Africa has become a transshipment hub for drugs and small guns in the western Indian Ocean, with an annual worth of about \$190 million.
- World's hazard belt: The Indian Ocean region is sometimes referred to as the "world's hazard belt" due to its geographic susceptibility to disasters. Additionally, the area has the world's least advanced disaster response coordinating systems.
- Choke points: The Straits of Malacca, Hormuz, and Bab-el-Mandeb are the three principal choke points in the Indian Ocean. Due to the critical nature of these choke sites for global trade, even a slight disruption could have a significant effect on global transportation.

Conclusion:

The Indian Ocean region is becoming increasingly significant for international trade, geopolitical rivalry, and marine security. Regional frameworks including the Indian Ocean Commission, Indian Ocean Rim Association, and Indian Ocean Naval Symposium are primarily responsible for facilitating cooperation throughout the Indian Ocean. All parties involved will be able to coordinate and collaborate more effectively if the Indian Ocean is given a unified maritime identity and strategy.

MCQs

1. Consider the following statements about 'Survey of India'
 1. It acts as an adviser to the Government of India on all cartography-related matters
 2. It is an organization under the Ministry of Mines
 3. It is the prime provider of basic earth science information to government, industry and general publicHow many of the statement(s) given above are correct
a) Only one b) Only two c) All three d) None
2. Consider the following statements regarding the Indira Gandhi Prize for Peace:
 1. It is awarded to individuals as well as organisations who work towards peace and development.
 2. It is conferred only on Indian citizens.Which of the statements given above is/are correct?
a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2
3. Onattukara sesame, which recently got Geographical Indication (GI)-tag, is from:
a) Karnataka
b) Gujarat
c) Tamil Nadu
d) Kerala

4. With reference to Pradhan Mantri Mudra Yojana (PMMY), consider the following:
1. It extends affordable credit to micro and small enterprises.
 2. A farming-related income-generating activity is eligible for loans under the scheme.
 3. There is no subsidy for the loan given under PMMY.
- How many of the above statements are correct?
- a) Only one
 - b) Only two**
 - c) All three
 - d) None
5. With reference to 'Fractals', consider the following statements
1. Fractals are infinitely complex patterns that are self-similar across different scales
 2. They are capable of describing many irregularly shaped objects or spatially non-uniform phenomena in nature
 3. Fractals are useful in describing partly random or chaotic phenomena such as crystal growth, fluid turbulence, and galaxy formation
- How many of the statement(s) given above are correct
- a) Only one
 - b) Only two
 - c) All three**
 - d) None
6. Which of the following is an example of Greenwashing?
- a) A company emphasizing its commitment to sustainability with detailed data.
 - b) A car vendor claiming a vehicle is eco-friendly based solely on its fuel efficiency.**
 - c) Providing accurate information about the environmental impact of a product.
 - d) Transparently communicating a company's environmentally damaging practices.
7. Recently, NASA's Psyche Mission was in the news. It is related to
- a) Study of asteroids**
 - b) Study of psychology of Astronauts
 - c) Mind-controlled spacecrafts
 - d) Study of mental illnesses
8. UDAAN (Unit for Digitisation, Automation, Artificial Intelligence and Application Networking) works under—
- a) NITI Aayog
 - b) Indian Air Force**
 - c) Ministry of Civil Aviation
 - d) Ministry of Information & Technology (MEITY)
9. Consider the following statements:
1. Somalia is a landlocked country situated in the Horn of Africa.
 2. Bajuni Islands and the Socotra Archipelago are a part of and are administered by Somalia.
- Which of the statements given above is/are correct?
- a) 1 only
 - b) 2 only
 - c) Both 1 and 2
 - d) Neither 1 nor 2**
10. Which among the following statements best describes the term 'Black Gold':
- a) Coal and its derivatives
 - b) Gold extracted from Placer deposits
 - c) Petroleum and its derivatives**
 - d) Residual that remain after Gold extraction