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UNFPA ON INDIA'S POPULATION

Context

- According to a recent report by the **United Nations Population Fund (UNFPA)**, India's population is estimated to have reached 1.44 billion, with 24% in the 0-14 age bracket.

About

- The UNFPA's State of World Population - 2024 report, titled '**Interwoven Lives, Threads of Hope: Ending Inequalities in Sexual and Reproductive Health and Rights**', revealed that India's population is estimated to double in 77 years.
- **India** leads globally with an estimated population of 1.44 billion, **followed by China** at 1.425 billion.
 - ♦ India's population was recorded at 1.21 billion during the last census, conducted in 2011.
- Demographic Categorisation in India:
 - ♦ An estimated 24% of India's population is aged 0-14, while 17% is within the 10-19 age range.
 - ♦ The segment aged 10-24 is estimated to constitute 26%, with the 15-64 age group making up 68%.
 - ♦ Additionally, 7% of India's population is aged 65 years and above, with men having a life expectancy of 71 years and women 74 years.

Key Takeaways From the Report

- **Progress in Sexual and Reproductive Health:** Over the past 30 years, significant strides have been made in fulfilling the **International Conference for Population and Development (ICPD) agenda**.
 - ♦ The global rate of unintended pregnancies has fallen by nearly 20% globally.
 - ♦ The number of women using modern contraceptive methods has doubled.
 - ♦ At least 162 countries have adopted laws against domestic violence, and maternal deaths have decreased by 34% since 2000.
- **Persistent Inequalities:** Despite the progress, millions are still denied their health and rights every day.
 - ♦ Gender-based violence remains rampant in practically every country and community.
 - ♦ There has been zero reduction in maternal mortality since 2016, and in an alarming number of countries, the rates are rising.

- ♦ Nearly half of women still are unable to make decisions about their own bodies.

- **Marginalised Groups:** The report shows that although women across socioeconomic classes and ethnicities say barriers to health care have come down over time, the women most marginalised have experienced the least improvement.
 - ♦ Women of African descent are found to be more vulnerable to obstetric mistreatment and negative maternal health outcomes.
 - ♦ Indigenous women are often denied culturally appropriate maternal health care, and their own childbirth practices may be criminalised, resulting in significantly higher risk of death in pregnancy and childbirth.

Key Concerns Highlighted in the Report

- **Discrimination and Stigma:** The report highlights the role **racism, sexism, and other forms of discrimination** continue to play in blocking broad gains in sexual and reproductive health for women and girls.
 - ♦ Women and girls with **disabilities** face up to 10 times more gender-based violence while also facing higher barriers to sexual and reproductive information and care.
 - ♦ **LGBTQIA+** people face serious health disparities in addition to – and as a result of – discrimination and stigma.
- **Health and Social Challenges:** The report has found that 30 years of progress in sexual and reproductive health has mostly ignored the most marginalised communities worldwide.
 - ♦ According to it, the **child marriage percentage** in India was at 23% between 2006-2023.
 - ♦ The **maternal deaths in India** have **fallen** considerably, accounting for 8% of all such fatalities worldwide.
 - ♦ However, the report noted that India continues to see **inequities in maternal death risk**.

Conclusion and Way Forward

- The report suggests that to fulfil the promise of universal sexual and reproductive health and rights, one needs to **root out inequalities from our health systems and policies** and focus as a **priority** on those women and young people who are **most marginalized and excluded**.

- On the other hand, the large young population presents a significant opportunity for economic growth and development.
 - However, it also underscores the need for continued efforts in improving health and social outcomes, particularly for the most marginalised communities.

United Nations Population Fund (UNFPA)

- It is (formerly known as the United Nations Fund for Population Activities) a UN agency, established in 1969, aimed at improving reproductive and maternal health worldwide.
- It is the largest international source of assistance for population programs for the implementation of the Programme of Action of the **International Conference on Population and Development (1994)**.
- UNFPA works directly to tackle Sustainable Development Goals on health (SDG3), education (SDG4) and gender equality (SDG5).
- UNFPA is entirely supported by voluntary contributions of donor governments, intergovernmental organizations, the private sector and foundations and individuals, **not by the United Nations regular budget**.

Source: Business Standard

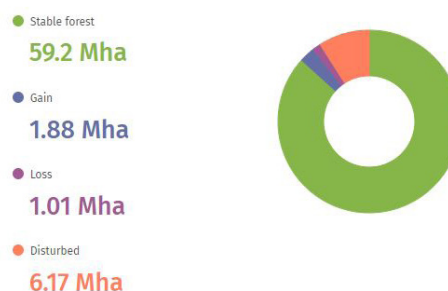
INDIA LOST 2.33 MILLION HECTARES OF TREE COVER SINCE 2000: GLOBAL FOREST WATCH

Context

- India has lost **2.33 million hectares of tree cover since 2000**, equivalent to a **six percent decrease in tree cover** during this period, according to the latest data from the **Global Forest Watch monitoring project**.
 - The Global Forest Watch **tracks forest changes in near real-time using satellite data and other sources**.

Findings

- Primary Forest Loss:** India lost 4,14,000 hectares of **humid primary forest** (4.1 per cent) from 2002 to 2023, making up **18 percent** of its total tree cover loss in the same period.



- Tree Cover Loss:** From 2001 to 2023, **India lost 2.33 Mha of tree cover**, equivalent to a **6.0% decrease in tree cover since 2000**.
 - From 2013 to 2023, **95% of tree cover loss** in India occurred within **natural forest**.
 - Five states** accounted for **60 percent** of **all tree cover loss** between **2001 and 2023**.
 - Assam had the maximum tree cover loss** followed by Mizoram, Arunachal Pradesh, Nagaland, and Manipur.
- Tree Cover Gain:** In India, the top **6 regions** were responsible for **54%** of all tree cover gain between 2000 and 2020. **Karnataka** had the most tree cover gain.
 - From 2000 to 2020, India gained **1.4% of the global total**.
- All Tree Cover:** As of 2010, the **top 7 regions** represent **55% of all tree cover**.
 - Arunachal Pradesh** had the most tree cover followed by **Assam, Chhattisgarh, Kerala and Odisha**.
- Loss Due to Forest Fires:** India lost 35,900 hectares of tree cover due to fires from 2002 to 2022, with 2008 recording the maximum tree cover loss due to fires.
 - From 2001 to 2022, **Odisha had the highest rate of tree cover loss due to fires**. Arunachal Pradesh lost 198 hectares, Nagaland 195 hectares, Assam 116 hectares, and Meghalaya 97 hectares.
- Carbon Sink:** Between 2001 and 2022, forests in India emitted 51 million tons of carbon dioxide equivalent a year and removed 141 million tons of carbon dioxide equivalent a year.
 - This represents a net carbon sink of 89.9 million tons of carbon dioxide equivalent a year.

Conclusion

- The tree cover loss data featured on the Global Forest Watch represents the best available spatial figures on **how forests are changing around the world**.

- The monitoring and alert system is designed to empower people everywhere with the information they need to **better manage and conserve forest landscapes**.

Source: IE

DECLINE IN PRIVATE INVESTMENT

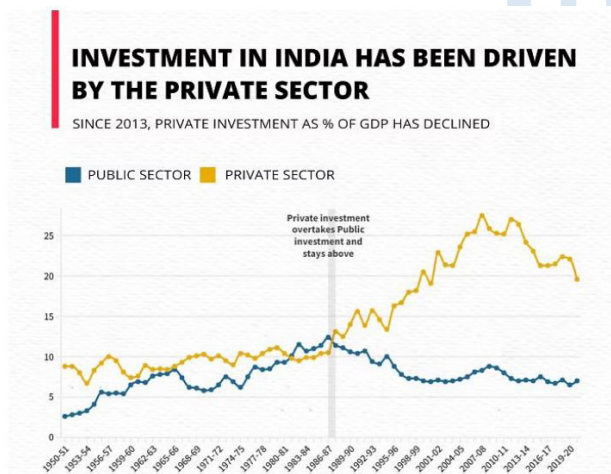
Context

- **Private investment** witnessed a **steady decline since 2011-12** and the government has been hoping that **large Indian corporations would step in and ramp up investment**.

About

- The failure of private investment, as **measured by private Gross Fixed Capital Formation (GFCF) as a percentage of gross domestic product (GDP) at current prices**, to pick up pace has been one of the **major issues plaguing the Indian economy**.
- In 2019, the Government **slashed corporate taxes from 30% to 22%** hoping that the move would encourage private investment.

What is the trend seen in private investment in India?



- In India, private investment began to pick up significantly mostly **after the economic reforms of the late-1980s and the early-1990s** that improved private sector confidence.
- From independence to economic liberalisation, private investment largely remained either **slightly below or above 10% of the GDP**.
- The growth in private investment lasted **until the global financial crisis of 2007-08**.

- It rose from around 10% of GDP in the 1980s to around 27% in 2007-08.

- From 2011-12 onwards, however, private investment began to drop and hit a low of 19.6% of the GDP in 2020-21.

- **Public investment** as a percentage of GDP **steadily rose over the decades from less than 3% of GDP in 1950-51** it, however, **began to drop post-liberalisation**.

What is GFCF and why does it matter?

- GFCF refers to the **growth in the size of fixed capital in an economy**.

- **Fixed capital** refers to things such as **buildings and machinery, for instance, which require investment to be created**.

- So private GFCF can serve as a rough indicator of how much the private sector in an economy is willing to invest.

- GFCF also includes **capital formation as a result of investment by the government**.

- **Significance of GFCF:** GFCF matters because fixed capital, by helping workers **produce a greater amount of goods and services** each year, helps to **boost economic growth and improve living standards**.

- Fixed capital is what largely determines the overall output of an economy and hence what consumers can actually purchase in the market.

- Developed economies such as the U.S. possess more fixed capital per capita than developing economies such as India.

Why Private Investment is Low in India?

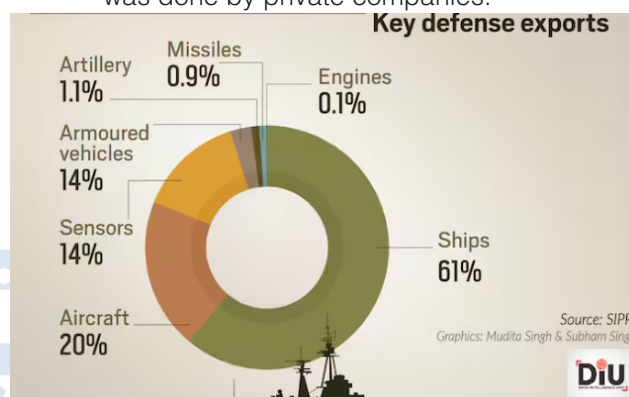
- **Low Private Consumption Expenditure:** Many economists have blamed **low private consumption expenditure** as the primary reason behind the failure of private investment to pick up over the last decade.

- **Strong consumption spending** is required to give businesses the confidence that there will be **sufficient demand for their output**.

- **Unfavorable Government Policies:** The rise in private investment in the 1990s and the 2000s **correlated with the economic reforms programme** started in 1991.

- The drop in private investment, on the other hand, correlated with the **slowdown in the pace of reforms in the last two decades**.

- ◆ Further, policy uncertainty can discourage private investment **as investors expect stability to carry out risky long-term projects.**
- **Bureaucratic Hurdles:** Cumbersome bureaucratic processes, including complex regulations and administrative delays, discourage private investment.
- **Infrastructure Challenges:** India faces significant infrastructure gaps, including inadequate transportation networks, and power shortages.
 - ◆ Poor infrastructure increases costs and reduces the attractiveness of investment opportunities.
- **Access to Finance:** Limited access to financing, particularly for small and medium-sized enterprises (SMEs) hinder investment.
- **Skill Shortages:** India faces shortages of skilled labor in certain sectors, which hinder investment in industries requiring specialized expertise.
- The country is currently exporting military hardware to around **85 countries**, with around 100 local firms involved.
- According to the Stockholm International Peace Research Institute, between 2000 and 2023, **Myanmar** remained the largest importer of Indian weapons, accounting for 31 per cent of India's exports and **Sri Lanka** followed at 19 per cent.
 - ◆ Mauritius, Nepal, Armenia, Vietnam, and Maldives were other major importers.
- **India's defense production** grew substantially from Rs 74,054 crore in 2016-17 to Rs 108,684 crore in 2022-23.
 - ◆ Out of this, 21.96 per cent of the production was done by private companies.



Way Ahead

- **Improving access to credit** and developing robust financial markets can stimulate private investment.
- **Investing in education** and vocational training programs can help address skill gaps and support investment.
- **Streamlining procedures** and reducing bureaucratic hurdles can improve the investment climate.

Source: TH

INDIA TO DELIVER BRAHMOS MISSILES TO PHILIPPINES

Context

- India is set to deliver the first set of BrahMos supersonic cruise missiles to the Philippines as part of the USD 375 million deal between the two sides signed in 2022.

India's Defence Export

- India has set a **defense export target** of ₹50,000 crore by 2028-29.
- **Defense exports of India** have touched Rs 21,083 crore in the FY 2023-24, a growth of **32.5%** over the last fiscal year.
- The private sector and the defense public sector undertakings (DPSUs) contributed around **60% and 40%**, respectively, in exports from India.

Government steps

- **Simplification of Export Procedures:** The government has introduced the India Defence Mart, an online portal for defense exports which enables companies to apply for export licenses and track their applications online.
- **Scheme for Promotion of Defence Exports (SPDE)** to promote exports of defense products, which includes provision of financial support for attending international defense exhibitions, marketing, and publicity of Indian defense products abroad.
- **Technology Upgradation Fund Scheme (TUFS)** to encourage the modernization of the Indian defense industry.
 - ◆ The scheme provides financial assistance for technological upgradation and modernization of manufacturing facilities.
- The government has introduced a **Strategic Partnership Model** to boost domestic production of defense equipment through partnerships with foreign companies.

- ♦ The BrahMos missile is a testament to the strong defense cooperation between India and Russia.
- Along with initiatives like **Make in India**, the Govt has established an **Export Promotion Council (EPC)** to encourage defense exports.

Concluding remark

- The remarkable growth has been achieved due to the policy reforms and Ease of Doing Business initiatives brought in by the Government, in addition to the end-to-end digital solution provided to the Indian industries for promoting defense exports.
- This growth is a reflection of global acceptability of Indian defense products and technologies.

BrahMos missiles

- It is a joint venture between India's **Defence Research and Development Organisation (DRDO)** and Russia's **NPO Mashinostroyeniya**.
 - ♦ The missile derives its name from the **Brahmaputra** and **Moskva** rivers.
- The BrahMos joint venture was formed in **1998** and the first successful launch of the missile took place in **2001**.

Features

- **Stages:** BrahMos is a **two-stage missile** with a solid propellant booster engine.
 - ♦ **First stage** brings the missile to supersonic speed and then gets separated.
 - ♦ **The second stage** takes the missile closer to three times the speed of sound in cruise phase.
- **Range:** The range of the missile was originally capped at **290 kms** as per obligations of the **Missile Technology Control Regime (MTCR)**.
 - ♦ Following India's entry into the club in June 2016, DRDO officials had stated that the range would be extended to **450 km and to 600 km** at a later stage.

Source: **BL**

GENDER GAP IN STEM FACULTY

Context

- A BiasWatch India study, revealed that only **13.5% of faculty** members across 98 universities and institutes are women.

About

- **Science, Technology, Engineering and Mathematics** – collectively termed the STEM fields – continue to be dominated by men.
- The study revealed a significant variation in women's representation across STEM disciplines.
- Engineering faculties showed the sharpest gender gap, with only **9.2% female** faculty. This contrasts with biology, where women comprised **25.5%** of faculty.

Reasons for low representation

- **Social Bias Against Women:** Fields like biology are considered soft science and have a higher proportion of women faculty compared to hard sciences like engineering, Physics and Computer Science. This bias discourages women from pursuing these fields in higher education and research.
- **Lack of Support During Postdoc to Faculty Transition:** The crucial postdoc to faculty transition often coincides with family planning. Societal pressure often prioritizes family over career ambitions for women.
- **Discrimination at Workplace Environment:** Many senior women leave STEM academia due to being disrespected, lacking access to necessary resources, or facing limited advancement opportunities compared to male colleagues.
- **Difficulty Accessing Gender Representation Data:** There's no central database tracking women faculty in STEM across India. This lack of data makes it hard to understand the extent of the gender gap and track progress towards equality.

Government schemes

- **The Department of Science and Technology (DST)** is implementing a dedicated scheme '**Women in Science and Engineering-KIRAN (WISE-KIRAN)**' to cater women of all walks of life in order to enhance their participation in the field of Science and Technology (S&T) with ultimate goal to bring gender parity.
- **The Department of Science and Technology (DST)** is implementing a dedicated scheme '**Women in Science and Engineering-KIRAN (WISE-KIRAN)**' to cater women of all walks of life in order to enhance their participation in the field of Science and Technology (S&T) with ultimate goal to bring gender parity.

- Another initiative launched by the DST includes the **Consolidation of University Research for Innovation and Excellence (CURIE)** which aims at assisting the research and development facilities at women's universities.
- To assist female researchers involved in Research and Development, **the Science and Engineering Research Board (SERB)** conceived SERB-POWER to provide financial aid in the form of grants and fellowships.
- To provide an avenue for scientifically inclined women researchers and scientists, an initiative called **Women in Engineering, Science, and Technology (WEST) was launched in 2022.**

Way Ahead

- The Indian society and the central and state governments need to collaborate to facilitate a gender-equal ecosystem.
- Gender equality or parity will happen only when there is a change in mindset and institutions consider women as assets rather than simply a diversity rectification issue.

Source: TOI

NEWS IN SHORT

SUBMERSIBLE PLATFORM FOR ACOUSTIC CHARACTERISATION AND EVALUATION (SPACE)

Context

- A state-of-the-art Submersible Platform for Acoustic Characterisation and Evaluation (SPACE) was inaugurated at Underwater Acoustic Research Facility, in Kerala.

About

- **The SPACE** is set up by the Naval Physical & Oceanographic Laboratory of DRDO.
- **Objective:** It has been designed as a premier testing and evaluation hub for sonar systems destined for the Indian Navy onboard various platforms including ships, submarines and helicopters.
- The SPACE will consist of two distinct assemblages;
 - ♦ A platform which floats on the water surface and
 - ♦ A submersible platform which can be lowered to any depth up to 100 m using winch systems.

Applications

- The SPACE will be utilized for evaluation of complete sonar systems, allowing for quick deployment and easy recovery of scientific packages such as sensors and transducers.
- It will be suitable for survey, sampling, and data collection of air, surface, mid-water, and reservoir floor parameters using modern scientific instrumentation.

Source: PIB

NITROPLAST

Context

- An international team of researchers has discovered the “**nitroplast**” — first **known nitrogen-fixing organelle within a eukaryotic cell.**

About

- This finding challenges the **long-held belief that only bacteria** can fix nitrogen.
 - ♦ **Nitrogen fixation** is the process by which nitrogen is taken from its **molecular form (N₂) in the atmosphere** and converted into **nitrogen compounds useful for other biochemical processes.**
- The nitroplast organelle discovery marks the **fourth instance of primary endosymbiosis in history**, a process where a **prokaryotic cell is engulfed by a eukaryotic cell and evolves into an organelle.**
 - ♦ A symbiotic relationship **where one organism lives inside the other** is known as endosymbiosis.
- **Prokaryotic and Eukaryotic Cells:** The cell is the basic unit of life and forms the building blocks of all living organisms. It was discovered by **Robert Hooke In 1665.**
 - ♦ Some cells have **membrane-bound organelles** and some do not. Depending upon the internal structure of the cell, two types of cells are found in an organism namely **Eukaryotic and Prokaryotic.**
 - ♦ Prokaryotic cells are **simpler and smaller in size**, while eukaryotic cells **are more complex and larger.**
- These findings show that **Candidatus Atelocyanobacterium thalassa UCYN-A** has **evolved from a symbiont to a eukaryotic organelle** for nitrogen fixation—the nitroplast—thereby expanding a function that was thought to be exclusively carried out by prokaryotic cells to eukaryotes.

Source: Science

VOICE SWAP TECHNOLOGY

Context

- Recently, there has been an increased number of **disinformation and manipulated media online using Voice swap technology.**

About

- It refers to the process of using an **AI algorithm** to either **alter or mimic an individual's voice.**
- The technology also allows the creators to **change the characteristics of a voice,** such as accent, tone, pitch, and speech patterns to make the videos more realistic.
- Currently, there are several **easy-to-use AI voice swap tools** available for free.
- The creator has to simply upload or record the audio sample that she wants to replace, and then customize the settings to make the **uploaded sample sound as realistic as possible.**

Source: IE

SKYTRAX WORLD AIRPORT AWARDS-2024

Context

- Recently **Hamad International Airport in Doha** has been named as the best airport in the world by the research firm Skytrax.

About

- The Skytrax World Airport Awards have been handed out since **1999** and are based on surveys of passenger experiences in several areas, including arrivals, check-in, immigration, shopping, transfers, security, and departure.

Global Scenario

- Changi Airport in Singapore** ranked **2nd** and **Incheon Airport in Seoul** was awarded the best family-friendly airport for 2024 and ranked **3rd** number.
- Tokyo's twin facilities of **Haneda and Narita** took **fourth and fifth** spots.

Indian Scenario

- Four airports** in India were included in the top list.
- The Delhi airport** remained **36th** on the list, while the Mumbai airport slipped to 95th.

- Rajiv Gandhi International Airport (RGIA), Hyderabad** airport moved up to **61st** place and Bengaluru airport pushed ten spots, moving up to **59.**

- RGIA clinched the 'Best Airport Staff in India & South Asia 2024'.

Source: HT

HUSH MONEY

Context

- Recently a jury of 12 people was seated in the former U.S. President Donald Trump's hush money trial.

What is Hush money?

- Hush money is a term for an arrangement in which one person or party offers another an attractive sum of money or other enticement, in exchange for remaining silent about some illegal, stigmatized, or shameful behavior, action, or other fact about the person or party who has made the offer.

Source: TH

NAGORNO - KARABAKH REGION

Context

- Recently, it was found that the Russian peacekeepers started withdrawal from Nagorno - Karabakh region amid Russia - Ukraine conflict.

About the Nagorno - Karabakh Region

- It is rugged highland, often referred to as the 'garden in the mountains', located within the **internationally recognized territory of Azerbaijan.**



- It is predominantly populated by ethnic Armenians and has been the centre of a protracted **conflict between Armenia and Azerbaijan.**

Historical Background

- Nagorno-Karabakh, also known as **Artsakh in Armenian**, has been ruled by several empires, including the **Ottomans, the Persians, and the Russians**.
- In 1923, the Soviet Union established the **Nagorno-Karabakh Autonomous Oblast** within the Azerbaijan Soviet Socialist Republic.
 - ♦ However, the region's legislature passed a resolution in 1988 declaring its intention to join the Republic of Armenia, **leading to armed conflict** and escalated into a full-scale war in the early 1990s.
 - ♦ By 1993, Armenia had gained control of Nagorno-Karabakh and occupied 20% of Azerbaijan's geographic area.
- A ceasefire known as the **Bishkek Protocol** was brokered by Russia in 1994, leaving Nagorno-Karabakh **de facto independent** but heavily reliant on Armenia.

Source: TH

COMBINED MARITIME FORCES

Context

- Recently, the Indian Navy has seized drugs in the Arabian Sea as part of an operation led by Combined Maritime Forces.

About the Combined Maritime Forces

- It is a **Bahrain-based multilateral and multinational naval partnership**, established in 2001, to counter the threat of international terrorism.

- It has expanded its focus to include **counter-narcotics, counter-smuggling operations, and suppressing piracy**.
- It exists to uphold the **Rules-Based International Order (RBIO)** by countering illicit non-state actors on the high seas and promoting security, stability, and prosperity across approximately 3.2 million square miles of international waters, which encompass some of the world's most important shipping lanes.
- **India's Association with CMF:** India formally commenced cooperation in November 2021.

Composition and Structure

- It has **42 member** and partner nations including Australia, Canada, Denmark, France, Pakistan, Japan, Germany, the United Kingdom, and the United States.
 - ♦ Other nations who have participated include Italy, **India**, Malaysia, Netherlands, New Zealand, Portugal, Singapore, Spain, Thailand, and Turkey.
- **Partner Nations:** Djibouti, Oman and Sri Lanka.
- The command of the task force rotates among the different participating navies, with commands usually lasting between four and six months.
- The work of the CMF is divided into **four Combined Task Forces (CTF)**:
 - ♦ **CTF 150:** Gulf of Oman and the Indian Ocean;
 - ♦ **CTF 151:** Counter Piracy;
 - ♦ **CTF 152:** Persian Gulf;
 - ♦ **CTF 153:** Red Sea and the Gulf of Aden;

Source: HT

