

WEEKLY UPDATES – (25th Sept-1st Oct)

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ART & CULTURE

Toto: Toto Shabda Sangraha

Context: Toto Shabda Sangraha will help revive Toto, spoken by around 1,600 people in parts of West Bengal bordering Bhutan. Toto is to get a dictionary, thanks to the efforts of a professor at the University of Calcutta.



- The dictionary is a step in the direction of **preserving the language**, alive so far only orally, by putting its vocabulary in print.
- Here too, Toto words, to be translated into Bengali and English, will be composed in the Bengali script, considering that the Toto script is still in a nascent stage and members of the tribe are more familiar with the Bengali script.
- The book/dictionary is historic, in the sense that the community does not have any collection of words or published primer.

About Toto

- ✓ It is a language spoken by barely 1,600 people living in parts of West Bengal bordering Bhutan.
- ✓ Toto is a **Sino-Tibetan language** spoken by the **tribal** Toto people and is written in the **Bengali script**.
- ✓ Even though prominent community member **Dhaniram Toto** developed a script as recently as in 2015, most people either write it in Bengali script or write in Bengali language.
- ✓ A book by the Padma Shri-decorated Mr. Toto, titled Dhanua Totor Kathamala, was written in Bengali.

- The trilingual dictionary, Toto Shabda Sangraha, will be released in Kolkata on October 7, at a function marking its founding.
- Every decade, India is losing languages and knowledge so it is important to preserve existing languages.

- The dictionary has been compiled by **Bhakta Toto**, a bank employee-cum-poet and published jointly by the trust and Bhasha Samsad, a publishing house run by Bitasta Ghoshal.
- This book will protect the language from vanishing. Even those studying in English and

Endangered Status

- Toto is considered a critically endangered language by UNESCO, with an estimated 1,000 speakers or fewer.
- Despite this endangered status, many families within the Toto community still use the language at home.
- It is often the primary language children learn at home, although they use Bengali when attending school.

Language Preservation Efforts

- Researchers and members of the Toto community are aware of the endangered status of the language.
- The influence of other languages, particularly Nepali and Bengali, is increasing, posing a threat to Toto.
- Efforts are being made to document and preserve the language, including the Himalayan Languages Project's work on creating the first grammatical sketch of Toto.

Anthropological Study

- The Anthropological Survey of India (AnSI) has conducted a study on the language of the Toto tribe.
- Despite the tribe's small population, the language is even more endangered.
- This underscores the urgency of preserving and revitalizing the Toto language.

Bengali can stay in touch with Toto because of this compilation.

- The trust will soon publish **Uttal Torsa**, another Bengali novel written by Dhaniram Toto.

Project Udbhav

Context: Army's Project Udbhav to rediscover 'Indic heritage of statecraft' from ancient texts.

Key Highlights

- The Indian Army has started an initiative, named Project Udbhav, to rediscover the **“profound Indic heritage of statecraft and strategic thoughts”** derived from ancient Indian texts of “statecraft, warcraft, diplomacy and grand strategy” in collaboration with the United Service Institution of India (USI), a defence think-tank.
 - ✓ The project endeavours to explore India's rich historical narratives in the realms of statecraft and strategic thoughts.
 - ✓ It focuses on a broad spectrum including indigenous military systems, historical texts, regional texts and kingdoms, thematic studies, and intricate Kautilya Studies.
- In connection with this, USI will conduct a **Military Heritage Festival** on October 21 and 22, to acquaint “future thought leaders with the dynamics of comprehensive national security with special emphasis on India's strategic culture, military heritage, education, modernisation of security forces and Atmanirbhar Bharat,” according to an Army statement.
- The initiative stands testimony to the Army's recognition of India's age-old wisdom in statecraft, strategy, diplomacy, and warfare, the statement said, adding that Project Udbhav seeks to bridge the historical and the contemporary.
- The aim of Project Udbhav is not limited to just rediscovering these narratives, but also to **develop an “indigenous strategic vocabulary”**, which is deeply rooted in India's “multifaceted philosophical and cultural tapestry”.
- The overall aim is to integrate age-old wisdom with modern military pedagogy, it stated.

Project Udbhav employs a comprehensive exploration methodology, which includes

Rich historical narratives

A focus on indigenous military systems

Study of historical texts

Examination of regional texts and kingdoms

Thematic studies

In-depth analysis of Kautilya's strategic contributions

Scholarly Outcomes	Significance
<ul style="list-style-type: none"> • A project on the compilation of Indian stratagems based on ancient texts has been ongoing since 2021. • A book listing 75 aphorisms from ancient texts has been released. • The first scholarly outcome is the 2022 publication titled "Paramparik Bhartiya Darshan... Ranniti aur Netriyta ke Shashwat Niyam" (Traditional Indian Philosophy...Eternal Rules of Warfare and Leadership). 	<ul style="list-style-type: none"> • Project Udbhav aims to reintroduce classical teachings into contemporary military and strategic domains. • It seeks to equip officers with ancient wisdom for application in modern scenarios. • Additionally, it promotes a deeper understanding of international relations and foreign cultures.

ENVIRONMENT

Balsams

Context: Balsams in full bloom add to visual treat in Munnar.

Key Highlights

Presenting a visual feast to tourists, balsams (genus *Impatiens*) are in full bloom in Munnar. Called Kasithumba and Onappovu locally, its small, pink flowers are a major attraction along the Devikulam stretch of the Kochi-Dhanushkodi National Highway.



- Balsams are also known as ‘**touch-me-not**’ because of the bursting of mature seeds and seed distribution.
- Botanists say the large-scale flowering of balsams indicates that **micro-climate is still active in the Munnar hill station**.
- Of the 220 balsam species in India, 135 are found in the southern Western Ghats.
- Idukki is known for the diversity of balsams, with scientists terming the district a balsam paradise.
- Anamudi, the highest mountain in the Western Ghats, and the surrounding high ranges are known for the diversity of wild balsams.
- New species of balsams are being discovered from these areas. There are balsams endemic to the high ranges.
- There are more than 30 species of balsams in the Periyar Tiger Reserve itself.

Humid Habitats

- The normal life cycle of balsams is from **June to December**.
- The plant mainly grows inside pockets of forest areas.

Features: Consisting of both annual and perennial herbs, balsams are succulent plants with high endemism. Because of their bright beautiful flowers, these group of plants are of prized horticultural significance.

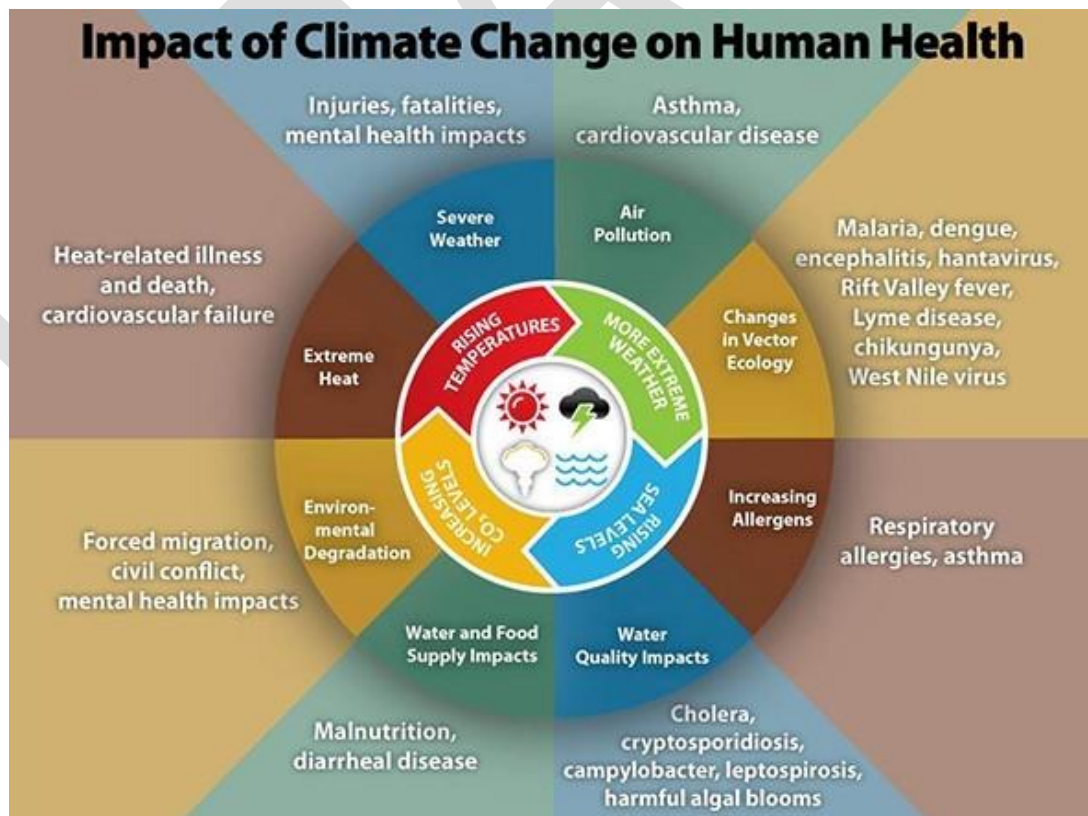
Distribution: About 230 species of Balsams are found in India, a majority of them in the eastern Himalayas and the Western Ghats.

- With the loss of specific habitats, many species have become rare, threatened, or even extinct.
- This fleshy orophytic herb usually **prefers humid habitats** and **completes the life cycle in the rainy season**.
- Balsams are a major indicator species of climate change. If climate change occurs in any area, it will reflect in the plant population.
- A forest official says 46 balsam species are found in the Munnar landscape, spread from Munnar to Chinnar and Bison Valley.
- Munnar is the major habitat of balsams, and there are over 40 wild species in the Eravikulam National Park.
- 46 species of balsams have been discovered in the altitude of Munnar. No other place in the world has such diversity.

Climate Change Heightens The Global Risk Of Infectious Diseases

Context: In its latest report released this March, the Intergovernmental Panel on Climate Change (IPCC) delivers a stark warning: climate change heightens the global risk of infectious diseases.

- The close relationship between climate and disease is being demonstrated every year.
- For instance, the periodicity of mosquito-borne disease outbreaks no longer follows expected patterns. Dengue manifests in two to three peaks throughout the year.
- Variability in **temperature, precipitation, and humidity** disrupt disease transmission cycles. These also alter the distribution of the **vectors and animal reservoirs** that host the parasite.
- **Heat** has been proven to interfere with the genomic structure of pathogens, changing their infectivity and virulence.



Climate Change, More Infections

- Habitat loss forces disease-carrying animals to encroach upon human territory, increasing the risk of human-animal interaction and the transfer of pathogens from wildlife to humans.
 - Viruses which do not harm animals can be fatal for humans.
 - Nipah virus, which has been causing outbreaks in Kerala for many years now, is a good example.
- An analysis of 2022 published in Nature Climate Change warns that humans now face a broader spectrum of infectious agents than ever before.
 - Over half of all-known infectious diseases threatening humans worsen with changing climate patterns.
- Diseases often find new transmission routes, including environmental sources, medical tourism, and contaminated food and water from once-reliable sources.
- While ecosystems shape local climates, climate change is transforming ecosystems. This dynamic introduces invasive species and extends the range of existing life forms.
- Both these trigger upheavals in ecosystems that are complex and confound ecologists and epidemiologists to predict outbreaks.
- Human-induced climate change is unleashing an unprecedented health vulnerability crisis.
- India, in particular, has felt the ominous impact, with early summers and erratic monsoons causing water scarcity across the Gangetic plains and Kerala.
- These climatic shifts are manifesting in severe health crises, including a dengue epidemic in Dhaka (Bangladesh) and Kolkata and the Nipah outbreak in Kerala.

Climate change impacts in India

What the INCCA Report has found

Warmer seasons

- Avg. temp rise: 2.0 deg C predicted
- 1.0-4.0 deg C at extreme ranges

Increased annual precipitation

- lower frequency of rainy days; increased intensity

Cyclonic disturbances

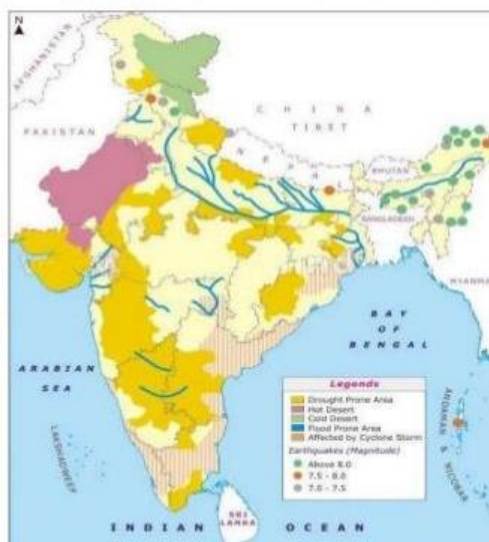
- lower frequency; increased intensity
- increased risk of storm surges

Sea-level rise

- 1.3 mm/year on average

Fresh water supply

- High variability predicted in water yields (from 50% increase to 40-50% reduction)
- 10-30% increased risk of floods; increased risks of droughts



Forests and natural ecosystems

- Increased net primary productivity
- Shifting forest borders; species mix; negative impact on livelihoods and biodiversity

Human health

- Higher morbidity and mortality from heat stress and vector/water-borne diseases
- Expanded transmission window for malaria

Reduced agricultural productivity

- Sharp fall in land productivity of 17% farmers
- General decrease in productivity of crops; however, cash crops like coconut may increase
- Crops earlier grown in lower or mid-Himalayan regions are now grown at higher altitudes
- Marine fisheries are likely to be impacted as the area of spawning shifts to higher latitudes

Surveillance And Reporting

- Changed disease scenarios require a revision of strategies to detect and deal with them.
- Over the past two decades, India has improved its reporting of outbreaks.

- The Integrated Disease Surveillance Programme (IDSP) was rolled out in a few States in 2007. From reporting 553 outbreaks in 2008, it last reported 1,714 in 2017.
- It was phased out in favour of a new, a web-enabled, near-real-time electronic information system called Integrated Health Information Platform (IHIP).
 - HIP was launched in seven States in 2018. It added 20 additional disease conditions over IDSP's 13 and could present disaggregated data to its users.
 - Tragically, the programme, which would have enabled real-time tracking of emerging disease outbreaks, has not delivered on expectations.

The **current design of surveillance is not adequate** for the emerging disease scenario. Mitigating the spread of climate change-induced diseases requires safeguarding ecosystems, curbing greenhouse gas emissions, and implementing active pathogen surveillance.

A unified approach, termed One Health which integrates monitoring human, animal, plant, and environmental health, recognises this interconnectedness. This approach is pivotal in preventing outbreaks, especially those that originate from animals.

It encompasses zoonotic diseases, neglected tropical diseases, vector-borne diseases, antimicrobial resistance, and environmental contamination.

What Should be done?

India must launch One Health and infectious disease control programmes by building greater synergies between the Centre and States and their varied specialised agencies.

Animal husbandry, forest and wildlife, municipal corporations, and public health departments need to converge and set up robust surveillance systems.

More importantly, they will need to build trust and confidence, share data, and devise logical lines of responsibility and work with a coordinating agency.

So far, the Office of the Principal Scientific Adviser to the Prime Minister has been taking this lead but with new World Bank and other large funding in place, this will need greater coordination and management.

Promote Wheat Seeds That Are Heat-Tolerant

Context: The Union government held an interaction with the States on the preparedness for the upcoming Rabi crop season against the background of a 5% decrease in monsoon rainfall this year.

- The Centre has asked the States to promote heat-resilient and high-yielding varieties of wheat among farmers.
- Talking to media persons, Union Agriculture Secretary Manoj Ahuja said the meeting had also reviewed the kharif season.
- The Centre was targeting an increase in the coverage of area under heat-tolerant wheat varieties to 60% this season.
- 800 climate-resistant varieties were available in the country and the States must place these seeds in the seed chain as part of a seed rolling plan. As a strategy, center requested all States to identify specific areas and map varieties that can be sown.
- Center shared information on rainfall with the States, and said if the pattern of rainfall and variations in temperature kept changing, it would affect agriculture.
 - We have seen how rainfall patterns are changing. We had a deficit in June, a surplus in July, [it was] dry in August, and again excess rainfall in September.
 - As a result, there is a 5% rainfall deficit in the country, adding that there was also a severe deficit in the reservoirs in Bihar, Andhra Pradesh, Tamil Nadu, Uttar Pradesh, West Bengal, Kerala, and Karnataka.

Heat-Tolerant Wheat Varieties

To address these challenges, India has developed approximately 800 climate-resistant wheat varieties. Notable examples include:

HD 3385

- ✓ Developed by the Indian Council of Agricultural Research's Indian Institute of Rice Research.
- ✓ Features high-temperature stress tolerance, especially at the end of the crop cycle.
- ✓ Designed for terminal heat tolerance.
- ✓ Growth cycle of 130 to 160 days when sown in November.
- ✓ Yield potential of 75 quintals per hectare.

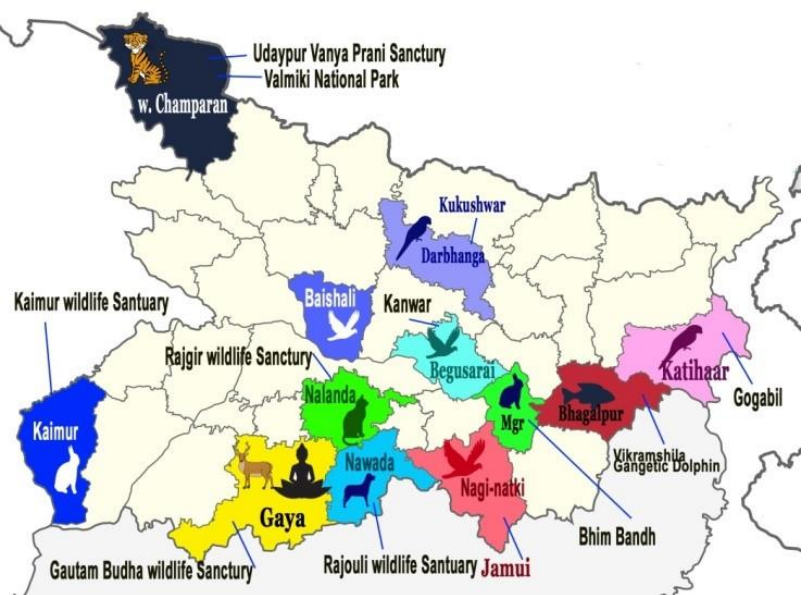
HI 1636 (Pusa Bakula)

- ✓ Released by the Indian Council of Agricultural Research (ICAR).
- ✓ Offers a yield potential of 72 quintals per hectare.

Bihar's Second Tiger Reserve

Context: Bihar is all set to get its second tiger reserve in Kaimur district by the end of the year or early 2024. The State is home to the Valmiki Tiger Reserve (VTR) in West Champaran district.

- Officials of the State Forest Department said they are working on obtaining the National Tiger Conservation Authority's (NTCA) approval for declaring Kaimur Wildlife Sanctuary as a tiger reserve.
- The NTCA had, in principle, approved our proposal in July for the



tiger reserve. The department has now started preparing for the final proposal to be sent to the NTCA for its formal approval.

- As per an NTCA report, the tiger population in VTR at present stands at 54 as against 31 in 2018.

About Kaimur District

- Kaimur district primarily comprises two landscapes — the hills, known as **Kaimur plateau**, and the **plains** on the west, which are flanked by the **rivers Karmanasa and Durgavati**.
- It has a **dense forest** cover and is home to tigers, leopards and chinkaras.
- According to officials, the forests in Kaimur are the biggest in the State, spanning 1,134 sq km and including the 986-sq km Kaimur Wildlife Sanctuary.
- At 34%, the district also has the highest green cover.
- The district shares boundaries with Jharkhand, Uttar Pradesh and Madhya Pradesh.
- Till 1995, tigers were regularly spotted in the Kaimur hills. After a gap, in 2017 the then District Forest Officer officially intimated the State government of their reappearance.

An official of the Environment, Forest and Climate Change Department said that in an earlier proposal, “900 km was identified as tiger habitat. But after the NTCA’s objection, it has come down to 450 km.”

ECONOMY

Centre Softens Angel Tax Rules

Context: Govt. introduces five different valuation methods for shares and a 10% tolerance for deviations from the accepted share valuations; The new rules, however, do not apply to resident investors.

- The government has eased some of the provisions of the angel tax introduced in this year’s Budget on investments into start-ups by non-resident investors at a premium over their fair market value.
- It has introduced five different valuation methods for shares and offered a 10% tolerance for deviations from the accepted share valuations.
- As per a notification issued by the Central Board of Direct Taxes, Rule 11UA under the Income Tax Act has been amended, with some changes to the draft norms released in May, bringing some relief to prospective foreign investors.
- The introduction of five alternative valuation methods for the valuation of equity shares, which so far could only be valued based on NAV and Discounted Free Cash Flow methods, should provide more flexibility to merchant bankers for the valuation of a company,” said Subramaniam Krishnan, partner at EY India.
- The option to value equity shares by any of these five methods is not available to resident investors.

Easier rules

Govt. eases rules governing investments in start-ups by non-resident investors at a premium over fair market value

■ The new rules notified by the Centre provide more flexibility to merchant bankers for the valuation of a company



■ Until now, the valuation of equity shares could only be based on NAV and discounted free cash flow methods

■ The new policy is expected to address practical difficulties faced by investors and firms due to lack of clarity on rules

- Deloitte India partner said Indian companies and investors were facing severe practical difficulties in executing a simple transaction involving infusion of capital on account of lack of clarity on these rules. Hopefully the investors will now get a push to consummate their investment.
- The amended rule brings in more clarity for both investor and investee, basis which an appropriate valuation method can be adopted, reducing the chances of any future litigation.

RoDTEP Scheme

Context: Exporters seek higher support under RoDTEP (Remission of Duties and Taxes on Exported Products) scheme.

- With goods exports declining for seven months in a row till August, the government has extended support to outbound shipments by stretching the applicability of the Remission of Duties and Taxes on Exported Products (RoDTEP) scheme for nine more months till June 30, 2024.

Review of Scheme

The extension comes even as the Revenue Department began a review of the export incentive scheme which provides a mechanism to reimburse taxes, duties and levies (at the central, State and local level) that are incurred by exporters in the production and distribution process and are not refunded under any other mechanism.

- At the first review meeting, exporters' bodies sought higher remission rates for all export items to secure more market access overseas along with Budget allocations for the scheme.

RoDTEP Scheme

The Scheme for Remission of Duties and Taxes on Exported Products (RoDTEP) has emerged as a critical tool in supporting India's exporters.

- It became operational on **1st January 2021** replacing the existing export incentive scheme, Merchandise Exports from India (MEIS).
 - This change was prompted by a World Trade Organization (WTO) ruling that determined the MEIS scheme's violation of WTO regulations due to its provision of export subsidies for a broad spectrum of goods.
- The rebate under the scheme is allowed, based on the allowed percentage of FOB (Freight On Board) value of exports and issued in the form of a transferable duty credit/electronic

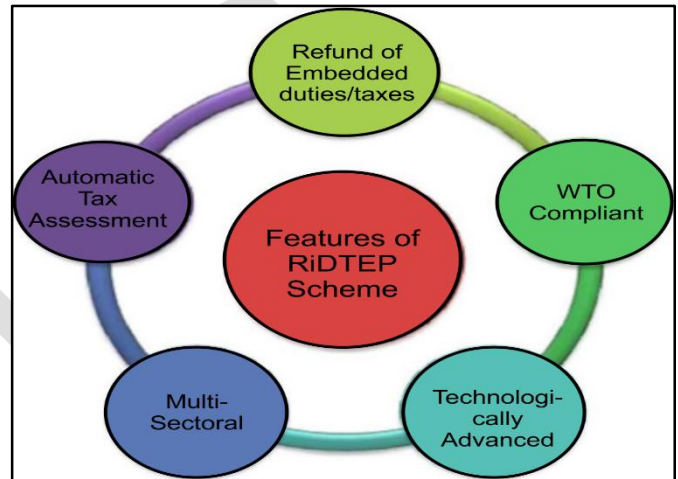
Objective	<ul style="list-style-type: none"> • Its primary objective is to provide comprehensive support to exporters by remitting duties and taxes incurred during the production and distribution of exported products. • Importantly, RoDTEP covers taxes, duties, and levies at the central, state, and local levels, which are not refunded through any other existing mechanisms.
Financial Allocation	<ul style="list-style-type: none"> • In the financial year 2023-24, the Indian Government has allocated a substantial budget of Rs. 15,070 crores to support the RoDTEP Scheme.
Stakeholder Engagement	<ul style="list-style-type: none"> • The Committee recently initiated its activities by engaging with Export Promotion Councils (EPCs) and Chambers of Commerce.

scrip (e-scrip), the details of which are maintained in a digital ledger by the Central Board of Indirect Taxes and Customs (CBIC).

- The RoDTEP Committee operates within the Department of Revenue.
 - Its primary responsibility is to review and recommend ceiling rates for different export sectors under the RoDTEP Scheme.

Some Key Features of Remission of Duties and Taxes on Exported Products Scheme

Launch	1st Jan 2021
Affiliated Ministry	Ministry of Commerce and Industry
Tax Refund Range	0.5% to 4.3%
Excluded Department	Steel, Organic, Chemical, and Petrochemical
Target	Employment-oriented sectors such as Main, Agriculture, Leather, Gems and Jewellery are its prime target.
Total Outlay	12454 Cr
Taxes Intended to compensate to exports in this scheme	<ul style="list-style-type: none"> • VAT and Excise duty on the fuel used in self-incurred transportation costs • the fuel used in the generation of electricity via power plants or DG Sets • on the fuel used in running machinery/plant • Electricity duty on the purchase of electricity • Mandi Tax/ Municipal Taxes/ Property Taxes • Stamp duty on export documents; etc



Benefits Of The RoDTEP Scheme

- ✓ It will help make Indian exports more competitive in global markets and reduce the cost of production for exporters as it will reimburse exporters for the duties and taxes that they have paid on imported inputs.
- ✓ Scheme is expected to
 - Boost exports from India by making Indian exports more competitive in global markets.
 - Create jobs in India by boosting exports from India.
- ✓ The RoDTEP scheme is a simplified and automated scheme. This will make it easier for exporters to avail the benefits of the scheme.
- ✓ This will improve the ease of doing business in India, making it more attractive for foreign investors.
- ✓ The RoDTEP scheme will benefit a wide range of exporters. This will help to promote inclusive growth in India.

GOVERNANCE

Nine New Vande Bharat Trains To Link Religious, Tourist Sites

Context: After obtaining passenger feedback, new trains have been provided better amenities; PM says popularity of Vande Bharat trains is on the rise.

- Prime Minister Narendra Modi said it was unfortunate that not much attention was given earlier to modernising the Railways, and said his government was working for its transformation.
- Mr. Modi made the remarks by videoconferencing before flagging off nine Vande Bharat trains connecting religious and tourist destinations across 11 States.
- He said the speed and scale of infrastructure development was matching the aspirations of 140 crore Indians.
- The popularity of Vande Bharat trains was constantly rising and over 1.11 crore passengers had already travelled on them.
- The Prime Minister noted that 25 Vande Bharat trains were running and now nine more had been added. The day was not far when these trains would connect all parts of the country.

Key Highlights

- The new Vande Bharat trains will run between **Udaipur-Jaipur; Jamnagar-Ahmedabad; Patna-Howrah; Ranchi-Howrah; Rourkela-Bhubaneswar-Puri; Hyderabad-Bengaluru; Vijayawada-Chennai (via Renigunta); Tirunelveli-Madurai-Chennai; and Kasara-god-Thiruvananthapuram.**
- These trains, equipped with advanced safety features, including **Kavach**, will be a key step towards providing modern, speedy and comfortable means of travel to common people, professionals, businessmen, student community and tourists, according to an official statement.
- The new trains have a host of features incorporated after passenger feedback.
 - The seat recline angle has been raised from 17.31 degrees to 19.37 degrees, cushioning optimised and the colour of the seat in the executive class changed from red to blue.
 - The changes also include improved accessibility of mobile charging points under the seats, extended footrest and magazine bags for executive class coach-end seats also.
- The new features include provision for securing points for wheel chairs.
 - The new train sets have improved air-tightness for better air conditioning with insulation over panels, better roller-blind

Vande Bharat Trains

- ✓ It is an **indigenously designed and manufactured semi high speed, self-propelled** train that is touted as the next major leap for the Indian Railways in terms of speed and passenger convenience since the introduction of Rajdhani trains.
- ✓ The first Vande Bharat was manufactured by the Integral Coach Factory (ICF), Chennai as part of the **'Make in India' programme**, at a cost of about Rs. 100 crore.
- ✓ The Vande Bharat was India's first attempt at adaptation of the train set technology compared with conventional systems of passenger coaches hauled by separate locomotives.
- ✓ The train set configuration, though complex, is faster, easier to maintain, consumes less energy, and has greater flexibility in train operation.

fabric with more tear strength with less transparency and smooth touch controls for luggage rack lights.

- The trains have improved aerosol-based fire detection and suppression system.

Features of the Vande Bharat Trains

- ✓ These trains, dubbed as Train 18 during the development phase, operate without a locomotive and are based on a propulsion system called distributed traction power technology, by which each car of the train set is powered.
- ✓ It can achieve a maximum speed of 160 kmph due to faster acceleration and deceleration, reducing journey time by 25% to 45%.
- ✓ It also has an intelligent braking system with power regeneration for better energy efficiency thereby making it cost, energy and environment efficient.

SCIENCE & TECHNOLOGY

ISRO Tests Engine for Gaganyaan Mission

Context: The Indian Space Research Organisation has successfully completed the CE20 E13 engine hot test for Gaganyaan qualification and 22-tonne thrust qualification.

Key Highlights

- The engine was tested at the ISRO Propulsion Complex (IPRC), Mahendragiri on September 22.
- The CE20 engine is a vital component, serving as the powerhouse of the Cryogenic Upper Stage (CUS) responsible for propelling the upper stage (C25) of the LVM3 vehicle.
- It has demonstrated its capability by successfully operating at a thrust level of 19 tonnes in six successive LVM3 missions and two commercial OneWeb missions.
- To enhance the payload capacity of the LVM3 vehicle, ISRO is upgrading the CE20 engine.
- The upper cryogenic stage is being transformed into the C32 stage with increased propellant loading capacity, and the engine is being modified to operate at a higher thrust level of 22 tonnes.
- The Test Vehicle D-1/Crew Escape System mission of Gaganyaan is likely to be conducted in October.

Dimension	Description
Objectives	To launch three crew members (including a women) into low Earth orbit and bring them back safely to Earth. Demonstrate the capability to send humans into space. Develop and test the technologies required for human spaceflight.
Launch Vehicle	Human Rated LVM3 (HLVM3) (GSLV Mk III derived)
Module	The Orbiter Module consists of the Crew Module (CM) (habitable space for the crew) and the Service Module (SM)— powered by two liquid propellant engines
Trial	Three flights will be sent into orbit. There will be two unmanned flights and one human spaceflight.
Launch Site	Satish Dhawan Space Centre, Sriharikota, Andhra Pradesh
Duration of Mission	It will circle Earth at a low-earth-orbit at an altitude of 300-400 km from earth for 5-7 days.
Collaborations	Collaboration with Russia's Roscosmos State Corporation for Space Activities. France's CNES (National Centre for Space Studies) is also a partner in the mission
Significance	Once accomplished, India will become the fourth country in the world to launch a human space flight mission after the US, Russia and China.

REPORT & INDEX

Findings of the Parliament Panel on NEP

Context: The Parliament Standing Committee on Education, headed by Bharatiya Janata Party (BJP) MP Vivek Thakur, tabled a report during the special session of Parliament on the **“Implementation of the National Education Policy (NEP), 2020 in Higher Education.”**

Key Highlights of The Report

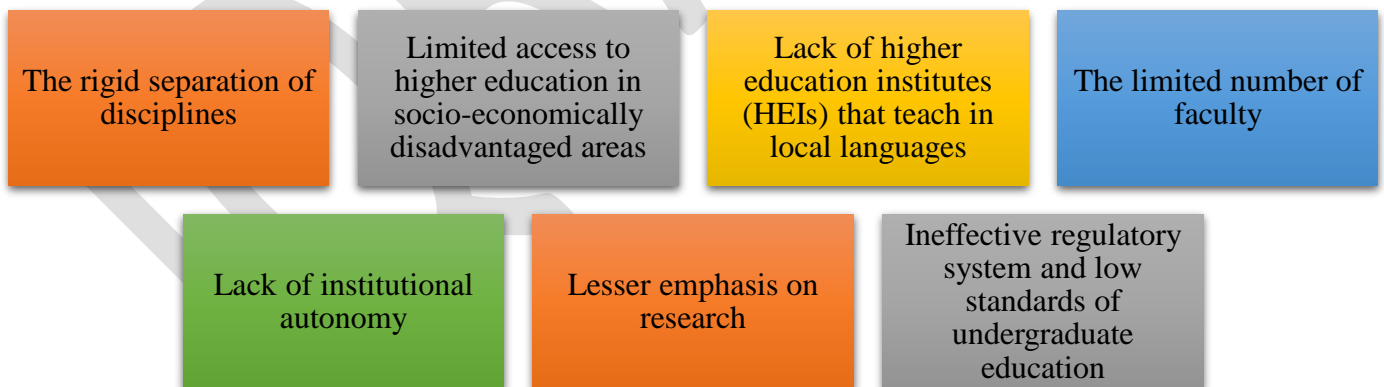
- The report looked at the salient features of the NEP’s implementation in the higher education sector and the progress made so far.
- The panel met representatives of various State governments, Union Ministries, higher education institutions and other stakeholders to prepare the report.
- The report noted that of the 1,043 universities functioning in the country, 70% are under the State Act and that 94% of students are in State or private institutions with just 6% of students in Central higher educational institutions, stressing the importance of States in providing higher education.

THE GIST

- The Parliament Standing Committee on Education tabled a report during the special session of Parliament on the ‘Implementation of the National Education Policy (NEP), 2020 in Higher Education’.
- The 31-member panel tried to discuss issues such as the rigid separation of disciplines, limited access to higher education in socio-economically disadvantaged areas etc.
- The panel said that Indian institutions were likely to face several issues in implementing the multiple entry and multiple exit (MEME) system.

Issues Discussed

- The 31-member panel tried to discuss issues such as



- The panel said that by 2030, every district in the country should have at least one multidisciplinary HEI and that the Gross Enrolment Ratio in higher education, including vocational education, should be increased from 26.3% in 2018 to 50% by 2035.

Recommendations

The panel asked the Union Government and the State Governments to take actions such as

Earmarking suitable funds for the education of socially and economically disadvantaged groups (sedgs),

Setting clear targets for higher gross enrolment ratio for sedgs,

Enhancing gender balance in admissions to heis,

Providing more financial assistance and scholarships to sedgs in both public and private heis,

Making admission processes and curriculum more inclusive,

Increasing employability potential of higher education programmes and for developing more degree courses taught in regional languages and bilingually.

Specific infrastructural steps to help physically challenged students

A strict enforcement of all no-discrimination and anti-harassment rules

The Committee appreciated the manner in which the NEP was implemented in Jammu and Kashmir. It said that the Union Territory was among the first in the country to implement NEP from the academic session 2022 in all its higher educational institutions. The panel said it witnessed a paradigm shift in the methods of teaching, leading to lifelong learning opportunities to students.

What about funding?

- The Committee suggested improving the effectiveness and impact of the Higher Education Financing Agency (HEFA) in funding HEIs.
- It asked the HEFA to diversify its funding sources beyond government allocations and explore partnerships with private sector organisations, philanthropic foundations, and international financial institutions.
- It recommended reviewing and adjusting the interest rates on loans provided by HEFA “to make them more competitive and affordable” for HEIs.

What about the multiple entry multiple exit programme?

- The panel said that Indian institutions were likely to face several issues in implementing the multiple entry and multiple exit (MEME) system.
- The panel said while the MEME looked like a flexible system, which was being operated by Western educational institutions effectively, it might not work well in the country.
- If institutions allow MEME, it would be very difficult for the institutions to predict how many students would exit and how many would join midway. Since institutions would not know the in-and out-traffic, it will certainly disturb the pupil-teacher ratio.

A Report on Global Digital IDs

Context: A report on global digital IDs brings Aadhaar's limitations, risks in focus.

- In an innocuously titled report on “Decentralized Finance and Digital Assets” released last Saturday, global rating major Moody's Investors Service has flagged some uncomfortable home truths about India's ambitious digital identification (ID) programme for residents, Aadhaar.
- As the world's largest digital ID programme with biometric and demographic details of over a billion residents, Aadhaar stands out for its scale.
- But at a broader level, the agency has red-flagged security and privacy risks from “centralised” digital ID systems such as Aadhaar, where a single entity controls identifying credentials.
- Moody's, which has mooted decentralised ID systems that give users more control over their data, has also lent weight to worries about the efficacy of Aadhaar's biometric-based authentication systems to verify identities.
- The system often results in service denials, and the reliability of biometric technologies, especially for manual labourers in hot, humid climates, is questionable.
 - While this observation is of relevance amid the government's push to switch all payments under the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) to an Aadhaar-based payment system, it echoes the concerns raised ever since its launch under the United Progressive Alliance regime.

Key Highlights

The vigorous pursuit of Aadhaar, after some initial hesitation, under the present government has manifested in the 12-digit number becoming mandatory for almost all welfare benefits to weaker sections as well as activities such as opening bank or provident fund accounts, securing telephone connections and remitting taxes.

- Its use, backed by the expansion of access to no-frills bank accounts and mobile phone connections, has indeed enabled the direct transfer of benefits to millions in welfare schemes and weeding out ghosts and middlemen.
- Yet, there have also been instances of people being excluded from basic services for **lack of an Aadhaar or labourers and senior citizens struggling to confirm their fingerprints and retina scans to prove they exist.**
- An audit of the Unique Identification Authority of India (UIDAI) by the Comptroller and Auditor General of India released last year, had flagged lapses that jeopardise privacy and compromise data security, along with flaws in enrolment processes leading to duplication and faulty biometrics.
- India has pushed for digital public infrastructure like the one built around the edifice of Aadhaar, as a means for service delivery in G-20 nations and beyond.
- Having appointed a part-time chief to the UIDAI last month after four years, the government must seek an honest review of, and course correction in the Aadhaar programme, before expanding its linkages further, be it for electoral rolls, private entities or MGNREGA payments.

STs Trail Non-STs In 81 Health Measures: 2021 Study

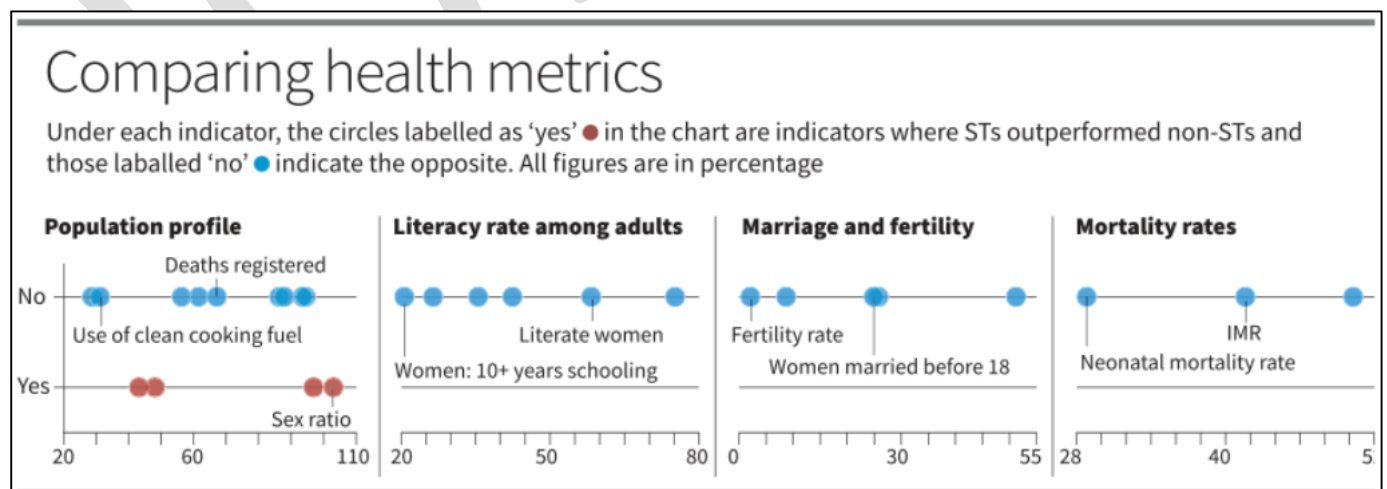
Context: The study evaluated 129 health indicators to compare the performance of Scheduled Tribes and non-Scheduled Tribes.

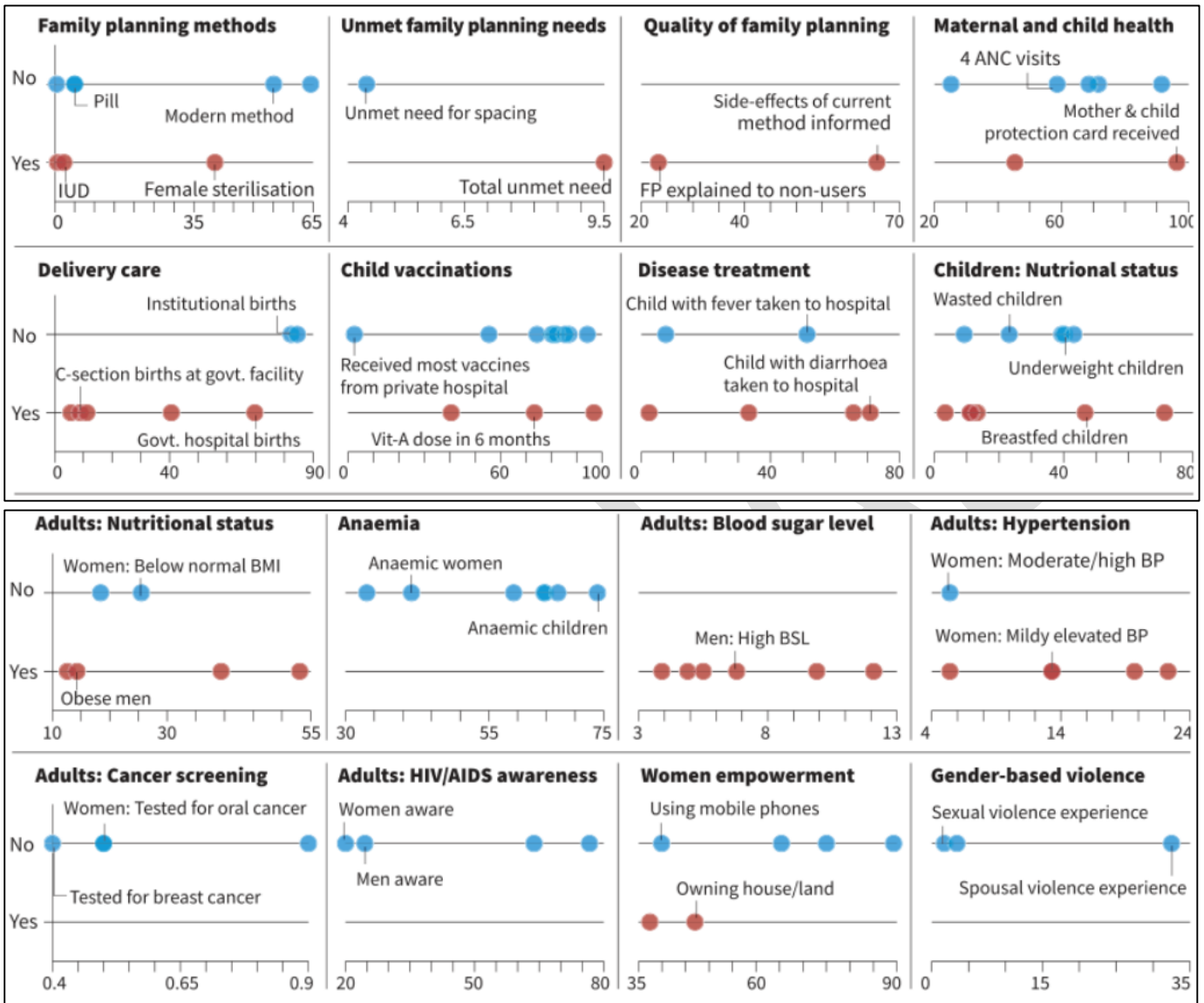
- In a recent study published in ‘The Lancet Regional Health — Southeast Asia,’ researchers provide a detailed analysis of the health, nutrition, and population trends of Scheduled Tribes (STs) from 2016 to 2021.
- Drawing from the National Family Health Surveys from 2016 and 2021, the authors contend that even though there is a noticeable improvement in the health and welfare metrics of STs, there are persistent disparities between the metrics of ST and non-ST populations, which demand urgent and consistent policy efforts.

Key Highlights

- The 2011 Census recorded over 104 million STs spread across 705 recognised ethnic groups. Even with targeted policies in place, STs, who make up 8.6% of India’s population, face health and socioeconomic challenges.
- The study offers an overview of the performance metrics for STs, non-STs, and the overall population based on 129 parameters in 2021.
- It also highlights the contrast in the performance metrics of STs between 2016 and 2021, spotlighting areas of both progress and decline.
- In 2021, the non-ST population outperformed the ST population in 81 out of 129 indicators.
- STs continued to face challenges, particularly concerning women’s status and major public health issues such as child malnutrition, anaemia, insufficient vaccination coverage, and disparities in fertility and mortality rates.
- The **48 indicators** on which STs surpassed non-STs include overall gender balance, gender balance at birth, use of family planning methods, consistent treatment during pregnancy, and adherence to recommended breastfeeding practices.
- Moreover, STs showed a reduced occurrence of diabetes and hypertension compared to non-STs.

The research divided the **129 indicators into 21 themes** to evaluate the comparative performance of STs and non-STs in 2021.





- The chart shows the number of indicators on which the STs outperformed the non-STs or vice versa.
- The circles labelled as ‘yes’ in the chart are indicators where STs outperformed non-STs and those labelled ‘no’ indicate the opposite.
- Aside from the indicators focused on non-communicable diseases (NCDs) in adults, STs are at a disadvantage in almost all categories.
- The study says that the areas where they face greater vulnerability need dedicated policy efforts.
- The mortality rate for children under five in the ST community was alarmingly high, with 50 out of every 1,000 children not reaching their fifth birthday.
- Additionally, child malnutrition was a pressing issue, as more than 40% of ST children under five were stunted, with a similar percentage being underweight.
- The study also highlights new challenges for STs. For instance, from 2016 to 2021, there was a significant rise in high blood pressure levels among ST men and women aged 15–49, with increases of 7.5% and 8.9%, respectively.

- Between 2016 and 2021, the ST population registered improvements in 83 of the selected 129 indicators (not visualised in the chart). During these years, STs experienced major improvements in access to improved sanitation facilities (an increase of 30.4 percentage points between 2015–2016 and 2019–2021).
- Similarly, more births were being attended to by skilled health personnel (an increase of 13 points) and full vaccination coverage among children aged 12–23 months (an increase of 18.6 points).
- The civil registration of births among STs also increased from 76% in 2016 to 88% in 2021.

The study contends that India’s progress on various policy metrics concerning population, health, and nutrition hinges on the ability of its marginalised groups, with the STs being a significant segment.

India Ageing Report 2023

Context: Study says challenges facing India’s ageing population are the feminisation and ‘ruralisation’ of older population, and policies must be framed accordingly; data show that women, on an average, have a higher life expectancy at the age of 60 and 80 when compared with men.

Key Highlights

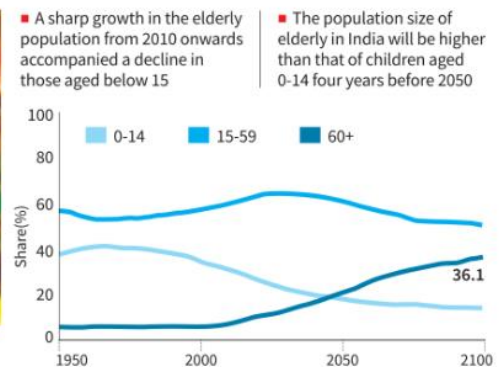
- With the decadal growth rate of the elderly population of India estimated at 41% and its share of the total population projected to double to over 20% by 2050, the United Nations Population Fund (UNFPA), India, in its 2023 India Ageing Report, has said that by 2046, it is likely that the elderly population will have surpassed the population of children (aged up to 15) in the country.
- More than 40% of the elderly in India are in the poorest wealth quintile, with about 18.7% of them living without an income, the report said, adding that such levels of poverty may affect their quality of life and healthcare utilisation.
- The report, projected that the population of people aged 80 and above will grow at a rate of around 279% between 2022 and 2050 with a **“predominance of widowed and highly dependent very old women”** — a finding in line with the pattern across several nations.
- The data showed that women, on an average, had a higher life expectancy at the age of 60 and 80 when compared with men — with variations across the States and Union Territories.
- For instance, in Himachal Pradesh and Kerala, women at 60 have a life expectancy of 23 and 22 years, respectively, which is four years more than that of men at 60 in these States — as compared with the national average differential of only a year and a half, the report said.

Turning grey

The chart shows the share of age groups in India’s total population from 1950 to 2100. The share of the population over the age of 60 years is projected to increase from 10.5% in 2022 to 20.8% in 2050. The elderly will form over 36% of the total population of the country by the end of the century



Ageing society: Women at an old-age home in Agartala. PTI



SOURCE: INDIA AGEING REPORT 2023

Higher Life Expectancy

- Life expectancy of women at 60 is greater than 20 years in States such as Rajasthan, Haryana, Gujarat, Uttarakhand, Kerala, Himachal Pradesh, and the Union Territory of Jammu & Kashmir, raising concerns about their social and economic well-being, the report said.
- Further, the sex ratio (number of females per 1,000 males) among the elderly has been climbing steadily since 1991, while the ratio in the general population has been stagnating.
- Between 2011 and 2021, the ratio increased in India as a whole and across all regions, barring the Union Territories and western India.
- In the northeast and the east, while the sex ratio of the elderly increased, it remained below 1,000 in both years, indicating that men still outnumber women in these regions even at 60-plus years.
 - This, however, is not true for the other regions (which has a bearing on the country's average).
- A case in point is central India, where the sex ratio went from 973 in 2011 to 1,053 in 2021, implying that the women caught up with and outperformed the men in survival after 60 years over the decade, the report said.

'Inherently Gendered'

“Poverty is inherently gendered in old age when older women are more likely to be widowed, living alone, with no income and with fewer assets of their own, and fully dependent on family for support,” the report said, pointing out that the major challenges facing India's ageing population are the feminisation and 'ruralisation' of this older population and that policies must be designed to suit their specific needs.

- The report noted that there was a significant inter-State variation in absolute levels and growth (and hence, share) of the elderly population as well, reflecting the different stages and pace of demographic transition across States.
- Most States in the southern region and select northern States such as Himachal Pradesh and Punjab reported a higher share of the elderly population than the national average in 2021, a gap that is expected to widen by 2036, the report said.
- While the States reporting higher fertility rates and lagging in demographic transition, including Bihar and Uttar Pradesh, expect to see an increase in the share of the elderly population between 2021 and 2036, the level will remain lower than the Indian average, the report said.
- Compared with southern and western India, central and northeastern regions have States with younger groups as indicated by the ageing index.
- In the southern region, the old-age dependency ratio (elderly people per 100 people between 15 and 59 years) was higher than the national average at around 20 as is true of western India at 17.
- Overall, Union Territories (13) and the north-eastern region (13) reflected lower old age dependency ratios,” it said.

United Nations Population Fund (UNFPA)

About	It is a subsidiary organ of the UN General Assembly and works as a sexual and reproductive health agency. The UN Economic and Social Council (ECOSOC) establishes its mandate.
Establishment	It was established as a trust fund in 1967 and began operations in 1969.

	In 1987, it was officially renamed the United Nations Population Fund but the original abbreviation, 'UNFPA' for the United Nations Fund for Population Activities was retained.
Objective	UNFPA works directly to tackle Sustainable Development Goals on health (SDG3), education (SDG4) and gender equality (SDG5).
Fund	UNFPA is not supported by the UN budget, instead, it is entirely supported by voluntary contributions of donor governments, intergovernmental organizations, the private sector, foundations and individuals.