

WITH INDIA CROSSING CHINA'S POPULATION NEXT YEAR, HOW WE CAN CREATE MASS PROSPERITY

Context

- The United Nations recently projected India's population to reach 1,428.63 million, surpassing China's (1,425.67 million) by 2023.
- On the one hand, India has doubled life expectancy from 31 years in 1947 to 70 years in 2022, while on the other hand, assuring mass prosperity for a vast population has proven difficult.
- The article thus emphasises the need of human capital-driven productivity in creating mass prosperity in India.

India's demographic scenario

- **Population Growth:** India has a population of **138 crore** in 2022, which is four times since the time of Independence in 1947 (**34 crore**).
 - It accounts for about **5%** of the world's population which is projected to reach 150 crores by 2030 and 166 crores by 2050.
- **Decline in India's TFR:** The total fertility rate (TFR) refers to the average number of children that a woman will have during her lifetime.
 - In 2021, India's TFR slipped below the replacement level fertility (which is 2.1 children per woman) as compared to a TFR of 6 in 1950s.
- **Mortality Indicator:** Life expectancy at birth saw a remarkable recovery graph from 32 yrs. in 1947 to 70.19 yrs. in 2022.
 - The **infant mortality rate** (IMR) declined from 133 per 1000 live births in 1951 to 27.6 in 2022.
 - The **Maternal Mortality Ratio** (MMR) of India has improved from 2000/lakh live births in 1947 to a spectacular 97/ lakh live births in 2022.
- **Crude Death Rate (CDR):** India witnessed CDR of 9.1 per 1000 people in 2022, an improvement from more than 200 per thousand population post-independence.

Human capital: Meaning and significance for India

- What is human capital?

- According to the OECD, human capital is defined as the **knowledge, skills, competencies**, and other characteristics embedded in humans and used to produce commodities, services or ideas for market.
- These characteristics **determine the productive capacity and earning potential** of the labour force and are important for technological advancement, social innovation, etc.
- **It differs from physical capital**, which refers to non-human assets such as machines, buildings, computers, and so on that aid in the manufacturing process.
- **Its significance for India:**
 - India's demographic dividend holds the **potential for economic gains** as the share of the working-age population (15 years - 64 years) is higher than the non-working age group (14 and younger, and 65 and older).

Way forward

- **The Finance Bill** in the upcoming budget must target productivity by legislating human capital and formal job reforms. It can be furthered by following measures:
- **Education reforms:** The phased implementation path for **National Education Policy 2020** should be reduced from 15 years to five years.
 - The **separate licensing requirements** for online degrees should be **abolished** and all accredited universities should be allowed to launch online learning.
- **Apprenticeship reform:** India has only 0.5 million apprentices, comprising **11% of the workforce** (China has 20 million, Japan 10 million).
 - Thus, by allowing all universities to launch **degree apprentice courses** can help accelerate growth of our apprentices to 10 million.
- **Factory reform:** The budget should also **notify the four labour codes for all central-list industries** while appointing a tripartite committee to converge them into **one labour code** by the next budget.
- **Ease of Doing Business (EoDB) reforms:** These can be advanced by designating every enterprise's PAN number as its **Universal Enterprise Number**.

- The **manufacturing employment** can be boosted by **abolishing the Factories Act** which accounts for 8,000 of the 26,000 plus criminal provisions in employer compliance.
- **Ease employer related provisions:** The budget should also envisage to **create a non-profit corporation** (like NPCI in payments).
- It will operate an API-driven **National Employer Compliance Grid** and enable the government to rationalise, digitise and **decriminalise employer compliances**.
- **Link employer incentives with job creation:** The budget should link all employer subsidies and tax incentives to high-wage employment creation.
- **Employee related reforms:** The gap between gross salary and net in-hand salary should be reduced by making employees' provident fund contributions optional but **raising employer PF contributions** from the current 12 to 13%.
- Budget should notify announcement to create employee choice in their contributions to health insurance (ESIC or insurance companies) and pensions (EPFO or NPS).

Conclusion

- Owing to India's democracy being her strength, India needs more structural transformation steered by employment in sectors such as manufacturing and modern services where productivity, value-addition and average incomes are higher.
- Experience and evidence now strongly suggest that **strategies focusing on human capital and formal jobs rather than fiscal or monetary policy** raises the probability of mass prosperity in the world's most populated nation.

WHAT ARE ECO-SENSITIVE ZONES (ESZ)?

Kerala Chief Minister recently assured people living on the extremities of protected forests spread across 115 densely populated panchayats in the State that they would not lose their land or livelihood to the Supreme Court-suggested one-kilometre buffer zone around ecologically sensitive localities (ESZ).



About Eco-Sensitive Zones:

- As per the National Wildlife Action Plan (2002-2016), issued by the Union Ministry of Environment, Forest and Climate Change, **land within 10 km of the boundaries of national parks and wildlife sanctuaries** is to be notified as **eco-fragile zones or Eco-Sensitive Zones (ESZ)**.
- While the 10-km rule is implemented as a general principle, the extent of its application can vary.
- Areas beyond 10-km can also be notified by the Union government as ESZs, if they hold **larger ecologically important “sensitive corridors”**.

Why are Eco-Sensitive Zones created?

- According to the guidelines issued by the Environment Ministry in 2011, Eco-Sensitive Zones are created as “shock absorbers” for the protected areas, to minimize the negative impact on the “fragile ecosystems” by certain human activities taking place nearby.
- These areas are meant to act as a transition zone from areas requiring higher protection to those requiring lesser protection.
- They are not meant to hamper the daily activities of people living in the vicinity, but are meant to guard the protected areas and “refine the environment around them”.

What are activities prohibited in an Eco-Sensitive Zones (ESZ)?

- Commercial mining, saw mills, commercial use of wood, etc., apart from regulated activities like felling of trees.

What are the permitted activities?

- Ongoing agricultural or horticultural practices, rainwater harvesting, organic farming, among others.

WHAT IS SAMARTH SCHEME?

Recently, the Central government stated that under SAMARTH scheme, more than 13,235 artisans have been trained in the last three years.



About SAMARTH Scheme:

- Government of India launched the “Scheme for Capacity Building in Textile Sector (SCBTS)” which is called SAMARTH, for the entire value chain of textiles except Spinning and Weaving in the organized sector, for a period of three years from 2017-18 to 2019-20.

Objectives:

- To provide demand-driven, placement-oriented National Skills Qualifications Framework (NSQF) compliant skilling programmes to incentivize and supplement the efforts of the industry in creating jobs in the organized textile and related sectors, covering the entire value chain of textile, excluding Spinning and Weaving.
- To promote skilling and skill upgradation in the traditional sectors of handlooms, handicrafts, sericulture and jute.
- To enable the provision of sustainable livelihood either by wage or self-employment to all sections of the society across the country.

The skilling programmes would be implemented through the following Implementing Agencies:

- Textile Industry.
- Institutions/Organizations of the Ministry of Textiles/State Governments having training infrastructure and placement tie-ups with the textile industry.
- Reputed training institutions/ NGOs/ Societies/ Trusts/ Organizations/ Companies /Start-Ups / Entrepreneurs active in the textile sector having placement tie-ups with the textile industry.

VAINU BAPPU OBSERVATORY

Recently, discoveries of the 40-inch telescope at the Vainu Bappu Observatory were highlighted at its 50-year celebration.



About Vainu Bappu Observatory:

- Vainu Bappu Observatory is considered one of the most renowned observatories in India it is **Located on Javadi Hills** at Kavalur, **Tamilnadu**
- The 40-inch telescope was installed in 1972 and started producing important astronomical discoveries soon after. More than a generation of astronomers were trained at this telescope as well.
- The telescope in the observatory is **under the Indian Institute of Astrophysics (IIA), an institute of the Department of Science and Technology (DST)**

Who is Vainu Bappu?

- He was an **Indian astronomer** who helped to establish several astronomical institutions in India including the Vainu Bappu Observatory which is named after him.
- He has played a significant role in astronomy with major discoveries like the **presence of rings around the planet Uranus, a new satellite of Uranus, and the presence of an atmosphere around Ganymede** which is a satellite of Jupiter.

Other Observatories in India:

- Solar Observatory in Kodaikanal, Tamil Nadu
- Indian Astronomical Observatory in Hanle, Ladakh
- Udaipur Solar Observatory in Udaipur, Rajasthan
- Gauribidanur Radio Observatory in Bangalore, Karnataka

WHAT IS SAMUDRAYAAN MISSION?

Union Minister of State (Independent Charge) Earth Sciences recently said that Samudrayaan Mission is aimed at sending three personnel to 6000-metre depth in a vehicle called 'MATSYA 6000'.



About Samudrayaan Mission:

- **Samudrayaan Mission** is aimed to **develop a self-propelled manned submersible** to carry three human beings to a **water depth of 6,000 meters** in the ocean with a suite of scientific sensors and tools for **deep ocean exploration**.
- The experts will be sent in a manned submersible vehicle called '**MATSYA 6000**'.
- This vehicle is being designed and **developed by the National Institute of Ocean Technology (NIOT), Chennai under the Ministry of Earth Sciences**.
- It has an endurance of 12 hours under normal operation and 96 hours in case of emergency for human safety.
- **Manned submersible** provides a feel of **direct physical presence for researchers** and has better intervention capability.
- With the launch of 'Samudrayaan' in October 2021, **India joined the elite club** of nations such as the **US, Russia, Japan, France, and China** to have niche technology and vehicles to carry out subsea activities.

Why is it relevant for India?

- India has a unique maritime position, a **7517 km long coastline**, which is home to **nine coastal states and 1,382 islands**.
- The mission aims to boost the Central government's vision of 'New India' that **highlights the Blue Economy as one of the ten core dimensions of growth**.
- For India, with its **three sides surrounded by the oceans** and around 30% of the nation's population living in coastal areas and coastal regions play a major economic factor. It supports fisheries and aquaculture, tourism, livelihoods, and blue trade.

[PALM-LEAF MANUSCRIPT MUSEUM](#)

Kerala Chief Minister will inaugurate a palm-leaf manuscript museum with modern audio-visual technology at the renovated Central Archives, Fort in Thiruvananthapuram.



About Palm-Leaf Manuscript Museum:

- It was set up by the Department of Archives, Kerala Government.
- The ₹3-crore museum has **eight theme-based galleries** where select manuscripts from one of the biggest palm-leaf collections in the country will be displayed.
- As many as 187 old and rare manuscripts stored at Central Archives and the department's regional offices in Ernakulam and Kozhikode will be housed in the museum.
- The manuscripts in ancient scripts such as **Vattezhuthu, Kolezhuthu, Malayanma, and ancient Tamil and Malayalam** are present in the museum.
- The manuscripts which delve into aspects as diverse as tax, administration, and trade to education, prisons, and festivals in the erstwhile Travancore, Kochi, and Malabar provide a fascinating glimpse of history that is rarely accessible to the common man.
- **Besides palm-leaf manuscripts, scrolls, bamboo splints, and copper plates are included in the collection.**

Galleries:

- **The first gallery 'History of Writing'** is an introduction to the evolution of writing, particularly in Kerala, and introduces visitors to the **Marayur cave paintings and engravings** and the **stamps and seals used in Harappa**, through their replicas.
- The other galleries are **'Land and people', 'Administration', 'War and peace', 'Education and health', 'Economy', 'Art and culture'**, amid the **Mathilakom records** (a collection of **3,000 cadjan manuscript rolls** possessed by **Sri Padmanabhaswamy Temple**).

WHAT IS DOKRA METAL CRAFTS?

Lalbazar, on the boundary with Jharkhand, is becoming a hub for dokra metalcraft.



About Dokra Metal Crafts:

- Dhokra is a form of ancient bell metal craft practiced by the Ojha metal smiths living in states like **Jharkhand, Chhattisgarh, Odisha, West Bengal and Telangana.**
- However, the style and also the workmanship of this artisan community varies in different states.
- Dhokra or Dokra, is also known as **bell metal craft.**
- Its documented history is about **5,000 years old.**
- Making dokra art is a difficult process. Each figurine takes about a month to make.
- Dokra artifacts are mainly made in brass and are highly unique wherein the pieces do not have any form of joints. The whole object is fully handcrafted.
- The traditional designs are considered highly aesthetic in nature and a collector's delight.

What is the process?

- There are many processes involved, for which seven to eight varieties of clay is required, apart from other raw material.
- **The method of making Dokra is done by combining the metallurgical skills with that of the lost wax technique.**
- The handicrafts are known for combining the metallurgical skills with wax technique for making artefacts of distinctive look and beauty.
- The lost wax technique is a distinct form where the mould is used only once and broken, which makes the figure one of its kind in the handicraft market.
- **There are two process of lost wax casting.**
- The first one is **Solid casting which is the method followed in the South and hollow casting, practiced in other states.**