

### INDIA AS A 'DEVELOPED' COUNTRY: WHERE WE ARE, AND THE CHALLENGES AHEAD

#### Context

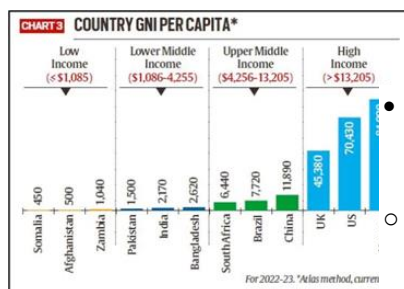
- Indian Prime Minister Narendra Modi pledged to make India a developed country in the next quarter-century on the eve of 75<sup>th</sup> year of Indian independence.
- PM Modi has urged citizens to focus on five resolutions ('Panchpran') to make India a developed nation in the next 25 years i.e. by 2047 when the country celebrates 100 years of independence.

#### About Panchpran', or five promises

- To move forward with bigger resolves and the resolve of a developed India
- To erase all traces of servitude(enslavement)
- To be proud of India's legacy
- To focus on India's unity, which is its strength
- To fulfill the duties of citizens with honesty

#### “Developed” country classification

- The ‘World Economic Situation and Prospects (WESP)’ classifies all countries into three broad categories as developed economies, economies in transition, and developing economies.
- To categorise countries by economic conditions, the United Nations uses the **World Bank's categorisation** based on Gross National Income (GNI) per capita (in current US dollars).



• The UN's nomenclature of “developed” and “developing” is often **contested** owing to following reasons:

- There are **31 developed countries** according to the UN in all and categorisation of **China** as a “**developing**” country is disputed.
- All the rest, except **17 “economies in transition”** are designated as “developing” countries.
- China's per capita income is closer to Norway's than Somalia's. China's per capita income is 26 times that of Somalia's while Norway's is just about seven times that of China's.

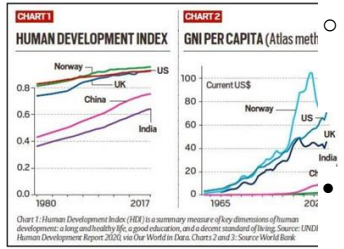


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○ Countries such as **Ukraine**, with a per capita GNI of \$4,120 (a **third of China's**) are designated as “**economies in transition**”.

## India's standing

● **Absolute level of GDP:** On this metric, India is one of the biggest economies of the world, even though the **US** and **China** remain far ahead.

- **Per capita income:** In 2021, India's per capita income, calculated in international dollars based on **purchasing power parity** was 7,333.5 dollars
  - India is behind even Bangladesh. China's per capita income is 5.5 times that of India, and the UK's is almost 33 times.
  - It was also **one seventh** of Organisation for Economic Co-operation and Development (**OECD**) countries per capita income of 48,482.1 dollars. OECD is a group of developed economies.
  - While India's per capita income **grew at double the rate of OECD** nations in **the last 25 years**, it would need to grow at 12.4 percent consistently to catch up to OECD countries within the next 25 years.
- **Social indicators:** The **infant mortality rate**. the number of infant deaths per 1,000 live births reduced from 76 in 1996 to **27 in 2020**, but it was still **over four times the OECD average** of six. At the current pace, India will only be able to achieve an infant mortality rate of 10.
  - The **life expectancy at birth** in India has gone from around 40 years in 1947 to around 70 years now.
- **Human development:** India's current HDI score (0.64) is much lower than what any of the developed countries had even in 1980.
  - China reached the 0.64 level in 2004, and took another 13 year to reach the 0.75 level which was, incidentally the level at which the UK was in 1980.
- **Gender mainstreaming: Female Labour Force Participation Ratio** has dropped sharply from 32 per cent in 2005 to just 19.2 per cent in 2021, although the latest data is a small recovery from 18.6 per cent, the lowest in 32 years in the first pandemic year of 2020.

● **Distance left to cover**

- As per 2018 diagnostic report on India by the World Bank, though India is the **world's third-largest economy** in purchasing power parity (PPP) terms, but only **ten per cent** of Indians, at most, have consumption levels above the commonly used **threshold of \$10 (PPP) per day** expenditures for the global middle class.
- Other metrics, such as the **food share of consumption**, suggest that even rich households in India need a substantial expansion of their total consumption to reach levels of poor households in rich countries.

## How much can India achieve by 2047?

- **Learning from others journey:** To make assessment of quantifiable achievements in next 25 years, India needs to look at how long other countries took to get there.
  - For instance, in per capita income terms, Norway was at India's current level 56 years ago, in the year 1966.
- **Comparison with China:** China reached India's current per capita income mark in 2007. If India were to grow as fast as China did between 2007 and 2022, then, it will take India another 15 years to be where China is now.
  - Also, China's current per capita income was achieved by the developed countries several decades earlier like the UK in 1987, the US and Norway in 1979.
- **World Bank estimates:** As per World Bank's 2018 report, by 2047, at least half Indian citizens could join the ranks of the global middle class which means that households have access to better education, health care, clean water, improved sanitation, reliable electricity, affordable housing, and enough **discretionary income** to spend on leisure pursuits.
  - **Pre-conditions:** The World Bank laid out certain preconditions for this to happen like income well above the extreme poverty line and vastly improved public service delivery.

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## [DELHI, KOLKATA MOST POLLUTED CITIES GLOBALLY BY PM2.5, SAYS STUDY](#)

### In News:



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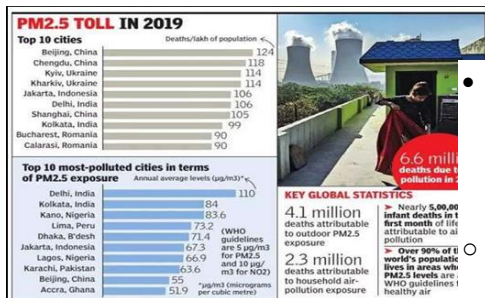
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- According to a recent report titled Air Quality and Health in Cities, published by the United States-based Health Effects Institute, Delhi and Kolkata are the top two most polluted cities in terms of exposure to harmful fine particulate matter (PM2.5).
- The report examines pollution and global health implications in over 7,000 cities worldwide, focussing on two of the most dangerous pollutants - fine particulate matter (PM2.5) and nitrogen dioxide (NO2).

## Overall findings of the Air Quality and Health in Cities report:



- The report, using data from 2010 to 2019, found that global patterns for exposures to the two key air pollutants (PM 2.5 and NO2) were strikingly different.
- Particulate Matter (PM) 2.5 refers to a category of particulate pollutant that is 2.5 microns or smaller in size.
- PM 2.5 is considered especially dangerous to human health because they bypass many of our body's defences (nose hair, mucus) and can get into our lungs, from where they can eventually enter the bloodstream.
- Nitrogen dioxide (NO2) is a gaseous air pollutant, which forms when fossil fuels such as coal, oil, gas or diesel are burned at high temperatures.
- As city residents tend to live closer to busy roads with dense traffic, they are often exposed to higher NO2 pollution than residents of rural areas.
- According to the report, while exposures to PM2.5 pollution tend to be higher in cities located in low and middle-income countries, exposure to NO2 is high across cities in high-income as well as low- and middle-income countries.
- The report found most global cities far exceed World Health Organisation's (WHO) air pollution guidelines, posing serious health risk.
- In 2019, 86% of the cities analysed exceeded the WHO's 10 µg/m<sup>3</sup> (microgram per cubic metre) guideline for NO2, impacting about 2.6 billion people.
- 41 of the 50 cities with the highest increase in PM2.5 are in India, with 9 in Indonesia.

- On the other hand, all 20 cities with the highest reduction in PM2.5 pollution from 2010 to 2019 are in China.

### India specific findings:

- Delhi and Kolkata were ranked first and second in the list of top 10 most polluted cities when PM2.5 levels were compared.
  - In terms of impact, Delhi and Kolkata ranked sixth and eighth for PM2.5 related disease burden, reporting 106 deaths and 99 deaths per lakh of population, respectively due to exposure to PM2.5 in 2019.
- However, no Indian city appeared in the list of top 20 polluted cities when NO2 levels were compared (Shanghai at the top with an average annual exposure of 41  $\mu\text{g}/\text{m}^3$ ).

### Why is there such a contradiction in India?

- According to the report, ground monitoring of air quality remains insufficient in many parts of the world, particularly in low and middle-income nations, concealing the true extent of NO2 pollution in places like India.
  - For example, based on the 2022 WHO Air Quality Database, of the 20 cities with the steepest increases in PM2.5 exposures in the report, only two (Satna and Varanasi in India) have an official monitoring station at ground level
- According to the experts, this paradoxical situation (difference in PM2.5 and NO2) in India was likely due to the relatively lower adoption of high-efficiency engine vehicles.
  - Complete combustion of fuel results in higher NOx (nitrogen oxides) where incomplete combustion sees other kinds of emissions.
  - Due to their highly reactive nature, nitrogen oxides also contributed to the formation of other pollutants, including ozone and particulate matter.
- NO2 also has a shorter lifetime compared with PM2.5 and other air pollutants.
  - As a result, NO2 levels show very high variability in space and time and levels can vary significantly even across a few kilometres within the city.
  - In comparison, PM2.5 levels tend to show less spatial variation at the fine scale.

### Way ahead for Indian cities:



- More developed cities who have controlled PM2.5 exposures are now in the grip of NO2 problem.
- Therefore, the Centre for Science and Environment (CSE) suggests that Delhi and Kolkata need the most stringent time bound multi-sector action to meet the clean air benchmark.
- The Indian cities must also learn from Beijing, which still has the largest PM2.5-related disease burden (despite significantly lowering its PM2.5 exposures) due to expanding and ageing populations.

## DELHI-DEHRADUN EXPRESSWAY PROJECT

Union Minister for Road Transport and Highways informed through a series of tweets that the last 20km stretch passes through eco-sensitive zone of Raja Ji National Park where Asia's longest elevated wildlife corridor (12km) is being constructed that includes 340m Daat Kali tunnel.



### About:

- He said sustainable development is the motto of Prime Minister Shri Narendra Modi's Government.
- The Minister said the tunnel intends to protect the surrounding wildlife. Once completed, the expressway would reduce travel time between Dehradun-Delhi from 6 hrs to 2.30 hours & Delhi-Haridwar from 5 hours to 2 hours.

## TRADITIONAL KNOWLEDGE DIGITAL LIBRARY (TKDL)

The Cabinet has approved the "Widening access of the Traditional Knowledge Digital Library (TKDL) database to users, besides patent offices".



### About:

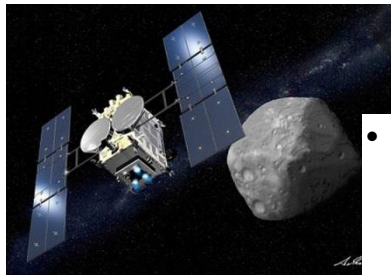
- The opening up of the TKDL is also envisaged to inculcate thought and knowledge leadership through Bharatiya Gnana Parampara, under the

New Education Policy 2020.

- The Traditional Knowledge Digital Library (TKDL) is a prior art database of Indian traditional knowledge established in 2001, jointly by the Council of Scientific and Industrial Research (CSIR) and Department of Indian Systems of Medicine and Homeopathy (ISM&H, now Ministry of AYUSH).
  - The TKDL is a first of its kind globally and has been serving as an exemplary model to other nations. The TKDL currently contains information from existing literature related to ISM such as Ayurveda, Unani, Siddha, Sowa Rigpa and Yoga.
  - The information is documented in a digitized format in five international languages which are English, German, French, Japanese and Spanish.
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## HAYABUSA-2 PROBE

**How did the Earth, believed to have been covered in bubbling oceans of magma billions of years ago, transform into the ‘blue planet’ and become covered in water?**



### **About:**

- In an article published in the journal Nature Astronomy on August 15, scientists from Japan suggest that water and organic materials might have been brought to our planet from the outer edges of the solar system.
  - The scientists made the hypothesis after analysing samples from the asteroid Ryugu, collected by the Japan Aerospace Exploration Agency’s (JAXA) Hayabusa-2 probe, which had brought 5.4 grams of rocks and dust from the asteroid to Earth in December 2020.
  - The Hayabusa-2 mission was launched in December 2014 when the spacecraft was sent on a six-year voyage to study the asteroid Ryugu.
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## MHA OVERRULES MINISTER’S TWEET ON PROVIDING FLATS TO ROHINGYA

**In News:**

- The home ministry **overrules** a statement by Minister for Urban Development welcoming a landmark decision that 1,100 Rohingya refugees in Delhi would be shifted to flats meant for the economically weaker sections.
- MHA also said that it had issued orders that the shanty town where the Rohingya were now living in be designated a detention centre, pending the deportation of all of the hundreds of people living there.

## Rohingyas



- The Rohingyas are the predominantly Muslim ethnic minority group with Benagli dialect.
- An estimated 800,000 Rohingyas lived in Myanmar's western Rakhine State.
- They were not regarded as one of the country's 135 official ethnic groups and were denied citizenship under Myanmar's 1982 Citizenship Law.

## Rohingya immigrants in India

- According to a Home Ministry estimate, around 40,000 Rohingya migrants live in different parts of the country, including Delhi.
- In 2021, the government informed the Rajya Sabha that illegal Rohingya immigrants are staying in 12 states and union territories.
  - These States/UTs are – J&K, Telangana, Punjab, Haryana, Uttar Pradesh, Delhi, Rajasthan, Tamil Nadu, West Bengal, Assam, Karnataka and Kerala.

## India's position on Rohingya immigrants

- **Illegal immigrants**
  - India considers Rohingya refugees as illegal foreigners.
  - MHA has already taken up the matter of their deportation with the concerned country through the ministry of external affairs (MEA).



- India is not a signatory to the 1951 UN Convention relating to the status of refugees and the 1967 protocol thereon.
- All foreign nationals (including refuge seekers) are governed by the provisions contained in:
  - The Foreigners Act, 1946, The Registration of Foreigners Act, 1939, The Passport (Entry into India) Act, 1920 and The Citizenship Act, 1955.
- Hence, foreign nationals who enter into the country without valid travel documents are treated as illegal migrants.
- **Threat to national security**
- In July 2021, the Union home ministry said illegal Rohingya immigrants posed a threat to national security as some of them indulging in illegal activities.

## WHAT IS CAUSING ARCTIC WARMING?

### **In News:**

- Researchers of Finnish Meteorological Institute published their study in the Communications Earth & Environment journal.
- The study concluded that the Arctic is heating four times faster than the rest of the planet.
- Other studies in 2021 (the American Geophysical Union) and in 2022 (Geophysical Research Letters) indicate that the Arctic amplification is four times the global rate.

### **Arctic Amplification**



- Arctic amplification is the increasingly ramped-up warming that's taking place in the area of the world north of 67 degrees N latitude.
- For more than four decades, temperatures in the Arctic have risen at two to three times the pace of the rest of the world.
- High temperatures are melting snow covers and glaciers. Permafrost is thawing and collapsing. Sea ice is disappearing.
- Permafrost is any ground that remains completely frozen—32°F (0°C) or colder—for at least two years straight.

- Some or all of these effects of heat trigger further temperature increases. Effect becomes cause, which becomes larger effect, which becomes stronger cause.
- Arctic amplification is an accelerating feedback loop that accelerates climate change throughout the rest of the world.

### Impact on India:

- A study found that the reduced sea ice in the Barents-Kara Sea region can lead to extreme rainfall events in India, in the latter half of the monsoons — in September and October.
    - The study was titled - ‘A possible relation between Arctic Sea ice and late season Indian Summer Monsoon Rainfall extremes’ (2021)
  - The changes in the atmospheric circulation due to diminishing sea ice combined with the warm temperatures in the Arabian Sea contribute to enhanced moisture and drive extreme rainfall events.
  - According to the World Meteorological Organization’s report, ‘State of Global Climate in 2021’, sea level along the Indian coast is rising faster than the global average rate.
    - One of the primary reasons for this rise is the melting of sea ice in the polar regions, especially the Arctic.
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