

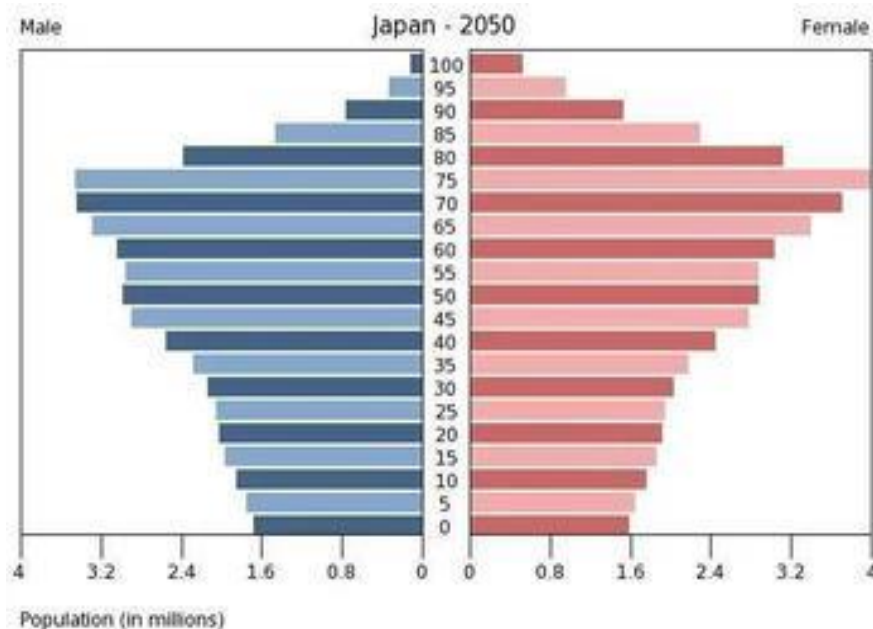
September - 28

TNPSC BITS

- ❖ The Nobel Foundation to raise the award amount for this year's Nobel Prizes by 1 million kronor (USD 90,000) to 11 million kronor (USD 986,270 which is approximately Rs 8,19,49,519).
- ❖ Erica Robin, a resident of Karachi, Pakistan, has won the title of 'Miss Universe Pakistan 2023', becoming the first woman in the country to achieve this title.
- ❖ The birth anniversary of social reformer 'Periyar' E.V. Ramasamy is observed as 'Day of Social Justice' in Tamil Nadu on September 17 every year.

INTERNATIONAL

Japan population crisis



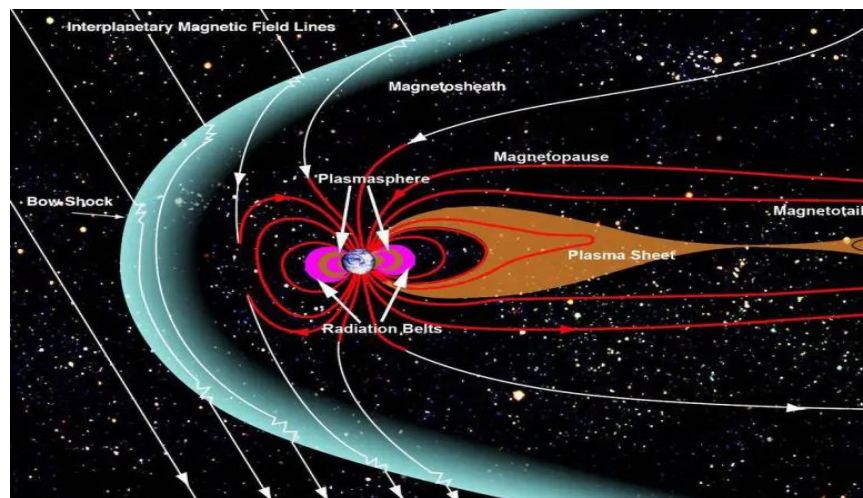
- ❖ For the first time, more than 10 per cent or one in 10 people have crossed the age of 80 years or older.
- ❖ Japan currently has the world's oldest population as measured by the proportion of people aged 65 years or up.
- ❖ Just a year ago, Japan's population aged 65 or older stood at 29 per cent.
- ❖ By 2040, it is projected that around 34.8 per cent of the Japanese population will be aged 65 or more.

- ❖ More than a third of people aged between 70 and 74 have jobs in Japan.
- ❖ Italy is ranked at the second position in terms of older population, has 24.5 per cent of its population at 65 or older.
- ❖ Third-ranked Finland's 23.6 per cent population is of the age bracket.

SCIENCE AND TECHNOLOGY

Moon's Water Formation

- ❖ Chandrayaan-1 data revealed that the High-Energy electrons from planet Earth might be forming water on its satellite Moon.
- ❖ Chandrayaan-1 played a crucial role in the discovery of water molecules on the Moon.
- ❖ Solar wind is composed of high energy particles such as protons, bombards the lunar surface.
- ❖ It is thought to be one of the primary ways in which water has been formed on the Moon.
- ❖ Water formation in Earth's magnetotail is similar to when the Moon is outside it.
- ❖ This suggesting additional water formation processes beyond solar wind protons, possibly involving high-energy electrons.

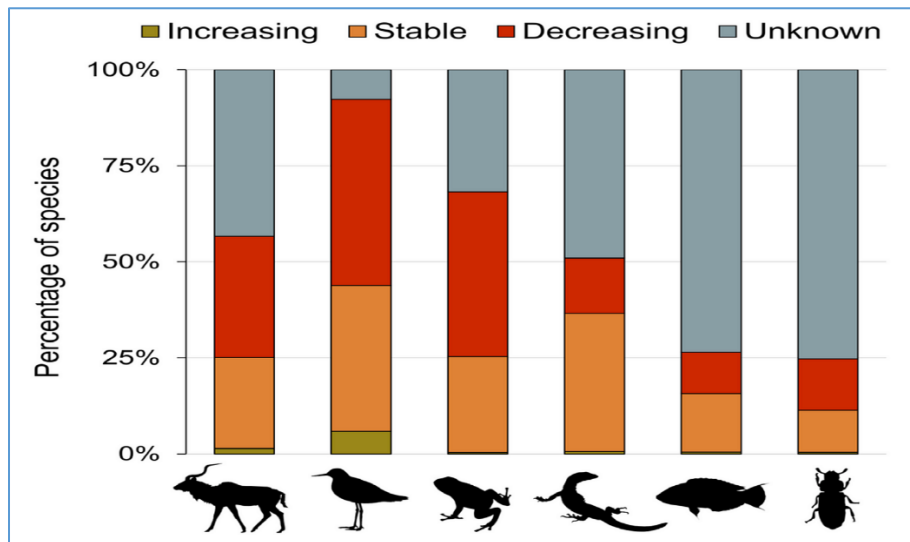


ENVIRONMENT

Threat of a sixth mass extinction

- ❖ Humans are driving the loss of entire branches of the “Tree of Life,” warning of the threat of a sixth mass extinction.

- ❖ The study is largely based on the species listed as extinct by the International Union for Conservation of Nature (IUCN) and focuses on vertebrate species (excluding fish).
- ❖ Out of some 5,400 genera – which comprises some 34,600 species – 73 had become extinct in the last 500 years.
- ❖ Based on the extinction rate in the previous million years we would have expected to lose two genera. But we lost 73.
- ❖ A mass extinction defined as the loss of 75 per cent of species over a short period of time.



REPORTS AND INDICES

Global trends in child monetary poverty

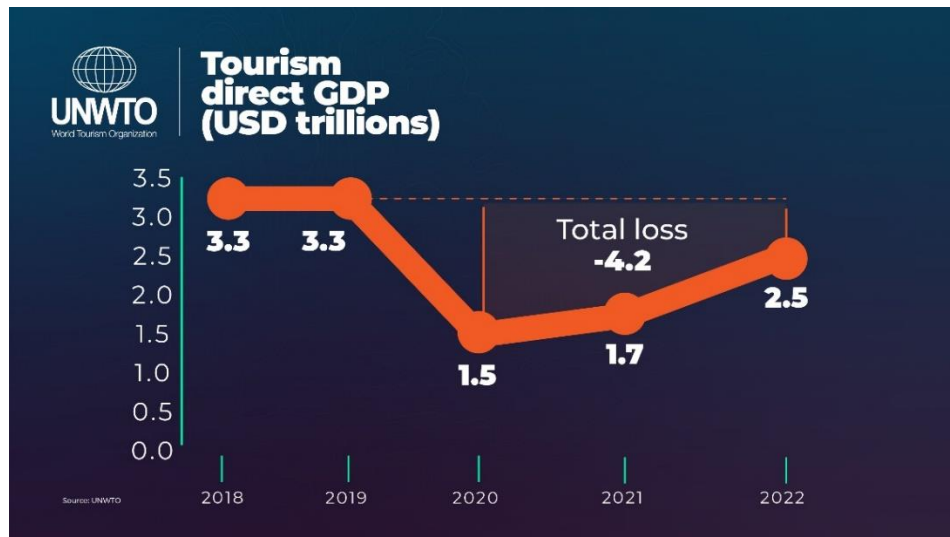
- ❖ The Global Trends in Child Monetary Poverty According to International Poverty Lines was prepared by the World Bank Group and UNICEF.
- ❖ World's extremely poor population is increasingly being added by children.
- ❖ The latest assessment of child poverty is based on the new poverty line of \$2.15.
- ❖ In 2022, children accounted for 52.5 per cent of the total extreme poor population in the world.
- ❖ In 2022, 15.9 per cent of the world children population lived in extremely poor households as compared to 6.6 per cent of adults.
- ❖ In India, according to the assessment, 11.5 per cent children live in extremely poor households.
- ❖ In absolute numbers, 52 million Indian children who are poor.

- ❖ Some 18.3 per cent (99 million) of children is living in extreme poor households were below the age of five years.
- ❖ The average poverty gap at the \$2.15 line of children younger than 18 years is greater (5.1 per cent) than that of adults (1.9 per cent).

Table 2: Extreme poverty (PPP \$2.15) in 2022, by age groups

	Age group	Extreme poor (millions)	Headcount poverty rate (%)	Share of extreme poor (%)	Share of population (%)	Poverty Gap ratio
0_17	Children 0-17	333.34	15.9	52.5	31.6	5.1
0_4	Children 0-4	99.34	18.3	15.8	8.2	6.0
5_9	Children 5-9	105.04	17.1	17	9.3	5.6
10_14	Children 10-14	88.75	14.7	14.1	9.1	4.7
15_17	Children 15-17	40.21	11.9	6.4	5.1	3.6
18plus	Adults (18 or more)	301.43	6.6	47.5	68.4	1.9
18_59	Adults 18-59	264.43	7.1	42	56.4	2.1
60plus	Adults 60 or more	31.55	4.0	5.0	12.0	1.1
Total	Total	629.32	9.48	100.00	100.00	2.9

International Tourism Highlights – 2023



- ❖ The UN World Tourism Organization (UNWTO) recently released a report on international tourism.
- ❖ Tourism was one of the most impacted industries by the COVID-19 pandemic and lost \$2.6 trillion in export revenues.
- ❖ International tourist arrivals or overnight visitors fell from 1.5 billion in 2019 to 400 million in 2020.
- ❖ This was a 72 per cent drop in just one year.

- ❖ Export revenues in 2020 dropped to as low as 62 per cent of the pre-pandemic levels, meaning losses of \$1.1 trillion.
- ❖ This is accounted for 44 per cent of the global loss in international trade that year.
- ❖ Revenues from international tourism is accounted for seven per cent of global exports in 2019.
- ❖ The proportion is dropped to three per cent in 2020 and 2021.
- ❖ International tourism experienced a 12 per cent increase in 2021 to reach 456 million arrivals.
- ❖ Although this was 49 million more than in 2020, it was still 69 per cent less than the pre-pandemic levels of 2019 (1,465 million).
- ❖ Due to the pandemic, tourism's economic contribution, measured in tourism direct gross domestic product (TDGDP), has been dropped from 4 per cent of global GDP in 2019 to 2 per cent in 2020 and 2021.

PERSONALITIES, AWARDS, AND EVENTS

Breakthrough Prize 2024



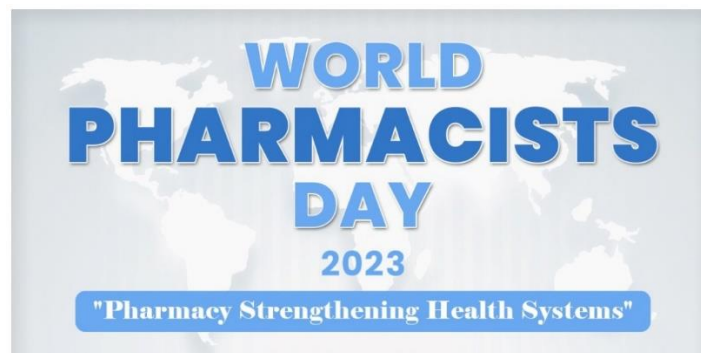
- ❖ The Breakthrough Prize in Life Sciences for 2023 has been awarded to Carl June and Dr. Michel Sadelain.



- ❖ These two scientists advanced the first use of CAR-T immunotherapy in leukemia.
- ❖ This type of therapy involves taking a patient's own immune cells and genetically engineering them to target and kill cancer cells.
- ❖ This technology has helped revolutionize cancer therapies.
- ❖ The other Life Sciences prize was awarded to Thomas Gasser, Ellen Sidransky and Andrew Singleton.
- ❖ Breakthrough Prize in Mathematics is awarded to Simon Brendle.
- ❖ Breakthrough Prize in Fundamental Physics is awarded to John Cardy and Alexander Zamolodchikov.
- ❖ Six New Horizons Prizes are awarded for Early-Career Achievements in Physics and Mathematics.
- ❖ Three Maryam Mirzakhani New Frontiers Prizes are awarded to Women Mathematicians for Early-Career Achievements.

IMPORTANT DAYS

World Pharmacists Day 2023 – September 25



- ❖ This day was announced at the 2009 International Pharmaceutical Federation (FIP) Congress held in Istanbul, Turkey.
- ❖ This special day was established to underscore the vital significance of pharmacists and pharmacy professionals in the realm of healthcare.
- ❖ The theme for this year is "Pharmacy Strengthening Health Systems."

MISCELLANEOUS

All-Electric Carmaker

- ❖ Volvo Cars will end production of any remaining diesel models by early 2024.



- ❖ This will be marking a step toward its goal of becoming an all-electric carmaker.
- ❖ Volvo has committed to going fully electric by 2030.
- ❖ In August 33 per cent of Volvo's sales were fully-electric or hybrid models.

