

DAILY PT POINTERS

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Nobel for Medicine

Hungarian biochemist Katalin Karikó and American physician-scientist Drew Weissman won the 2023 Nobel for Physiology or Medicine



Katalin Karikó



Drew Weissman

- The duo was awarded for their work that enabled the development of effective mRNA vaccines against COVID-19. Dr. Karikó is only the 13th woman to win the prize
- mRNA stands for messenger RNA, which carries instructions from DNA to make proteins in cells. Scientists had realised in the late 1980s that mRNA could become the basis for a new kind of vaccine if some hurdles could be overcome
- Dr. Karikó and Dr. Weissman published two more studies that set the stage for the use of an mRNA platform for a new kind of vaccine. In 2020, when the COVID-19 pandemic struck, mRNA vaccines were crucial in reducing the death toll

- The 2023 Nobel Prize in Physiology or Medicine has been awarded to Hungarian biochemist Katalin Karikó and American physician-scientist Drew Weissman.
- The discoveries by the two Nobel Laureates were critical for developing effective mRNA vaccines against COVID-19 during the pandemic that began in early 2020.

Do you know?

- The Nobel Assembly, consisting of 50 professors at Karolinska Institutet, awards the Nobel Prize in Physiology or Medicine.
- Its Nobel Committee evaluates the nominations.
- Since 1901 the Nobel Prize has been awarded to scientists who have made the most important discoveries for the benefit of humankind.

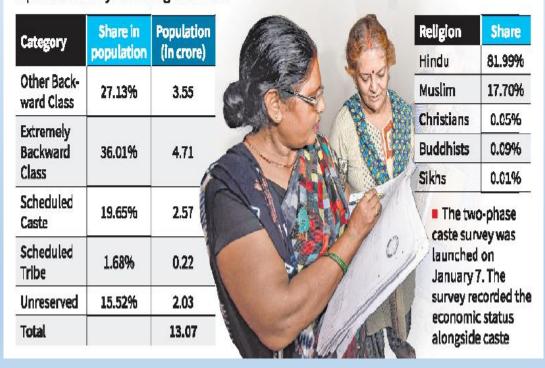
History

The **Nobel Prizes** were created by Alfred Nobel, a 19th-century businessman and chemist from Sweden. He held more than 300 patents but his claim to fame before the Nobel Prizes was having invented dynamite by mixing nitroglycerine with a compound that made the explosive more stable. The first Nobel Prizes were presented in 1901, five years after his death.

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Caste count

The tables show the caste and religion-based composition in Bihar according to the caste survey report released by the State government





- Nationwide data on caste numbers were last released after the census of 1931.
- The report said the Other Backward Classes (OBCs) make up 27.1286% of the population of the State; the Extremely Backward Classes (EBCs) 36.0148%; the Scheduled Castes 19.6518%; and the Scheduled Tribes 1.6824%. The upper castes make up 15.5224%. Hindus form 81.9986% of the population and Muslims 17.7088%. The total population is over 13 crore.

Do vou know?

- The Bihar Government launched a two-phase caste survey on January 7. The survey recorded the economic status of families alongside their caste, and has estimatedly collected socio-economic data for a population of 12.70 crore in the 38 districts of Bihar.
- The Union Government in 2011 had undertaken a survey of castes through the Socio-Economic and Caste Census of 2011 (SECC-2011). However, the data was never made public.



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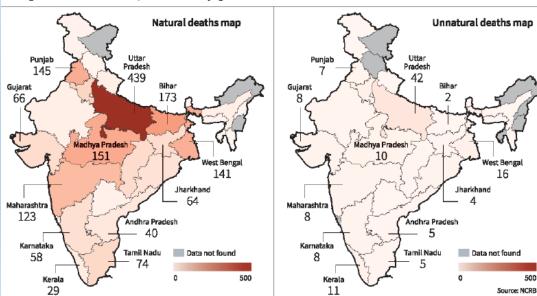
EXPLAINER

Counting deaths in India's prisons

How does the Official Prison Statistics India report label 'natural' and 'unnatural' deaths? Why do courts and experts think this classification is vague? Is the lack of space in prison facilities one of the leading factors resulting in custodial deaths?

The deaths of inmates in prisons in 2021

The two maps below show the number of 'natural' and 'unnatural' deaths of inmates in prison in some of the major States in the country. U.P. recorde the highest number of overall deaths, with 481 inmates dying in 2021



- In August (2023)this year, the **Supreme Court Committee PS on Prison Reforms** found suicide to be the leading cause of 'unnatural' deaths deaths other than ageing or illnesses among Indian prisoners, with U.P. recording the highest number of suicides between 2017 and 2021.
 - In a landmark Supreme Court judgment that drew attention to hostile prison infrastructure which results in custodial deaths.
- Every year, prison deaths are identified as 'natural' or 'unnatural' by the Prison Statistics India (PSI) report published by the National Crime Records Bureau (NCRB).
 - Since 1993, the NCRB is required to intimate a custodial death within 24 hours, followed by postmortem reports, magisterial inquest reports or videography reports of the post-mortem.

The Model Prison Manual of 2016 and the Mental Healthcare Act of 2017, outline inmates' right to healthcare, which includes adequate investment in healthcare facilities, setting up mental health units, training officers to provide basic and emergency care, and formulating suicide prevention programmes to thwart such instances

The Hindu: Health / S&T (Page 12)

WHO approves use of malaria vaccine with adjuvant tech

THE HINDU BUREAU NEW DELHI

Developed by Oxford and Serum institute, R21/Matrix-M vaccine could be widely available next year

- The R21/Matrix-M malaria vaccine developed by the University of Oxford and the Serum Institute of India, leveraging Novavax's adjuvant technology, was recommended for use by the World Health Organization (WHO), after meeting required safety, quality and effectiveness standards.
 - The R21 vaccine is the second malaria vaccine recommended by WHO, following the RTS,S/AS01 vaccine, which received a WHO recommendation in 2021.
- Both vaccines are shown to be safe and effective in preventing malaria in children and, when implemented broadly, are expected to have high public health impact.
 - Malaria, a mosquito-borne disease, places a particularly high burden on children in the African Region, where nearly half a million children die from the disease each year.

PIB: Governance

Prime Minister Shri Narendra Modi inaugurates 'tourist facilities at Nathdwara as part of Krishna circuit of Swadesh Darshan scheme

Posted On: 02 OCT 2023 4:22PM by PIB Delhi



- Prime Minister Shri Narendra Modi inaugurated multiple projects of Government of India which included 'tourist facilities at Nathdwara' funded by the Ministry of Tourism as part of Krishna circuit of Swadesh Darshan scheme.
- 'Swadesh Darshan: The Ministry of Tourism launched its flagship scheme of 'Swadesh Darshan' in 2014-15 and provided financial assistance to the State Governments/ UTs Administration/Central Agencies for development of tourism infrastructure at various destinations, subject to availability of funds, submission of suitable Detailed Project Reports, Adherence to scheme guidelines and utilization of funds released earlier etc
- The Ministry of Tourism has now revamped its Swadesh Darshan scheme as SD2.0 with the objective to develop sustainable and responsible destinations following a tourist & destination centric approach.

PIB: IR

15th Meeting of the Joint Working Group on Trade between India and Bangladesh

Posted On: 01 OCT 2023 10:22AM by PIB Delhi

- The India-Bangladesh Joint Working Group on Trade (JWG) Meetings are held on an annual basis to discuss key trade related issues and explore opportunities for economic and technical collaboration, promotion, facilitation, expansion and diversification of trade between the two countries on the basis of equality and mutual benefit.
- The 15th Meeting of JWG discussed a host of bilateral issues such as removal of port restrictions, ground work on commencement of Comprehensive Economic Partnership Agreement (CEPA), harmonization of standards, mutual recognition of standards, supply of essential commodities to Bangladesh, development of road and rail infrastructure, regional connectivity through multi-modal transportation and creation/ strengthening of infrastructure in Land Customs Stations/ Integrated Check Posts, border haats, etc.

PIB: Defence

SIMBEX 23 CONCLUDES

Posted On: 30 SEP 2023 5:56PM by PIB Delhi

- First held in 1994, SIMBEX has grown both in scope and complexity over the years, expanding beyond conventional naval warfare to include elements of maritime security.
 - initially known as Exercise Lion King.
- Apart from SIMBEX, the two navies interact regularly through a range of activities, including professional exchanges, staff talks and training courses.

PIB: Polity and Governance

Shri Dharmendra Pradhan launches the Bharatiya Bhasha Utsav and two-day Technology & Bharatiya Bhasha Summit

- Union Minister for Education and Skill Development & Entrepreneurship Shri Dharmendra Pradhan launched the Bharatiya Bhasha Utsav and inaugurated the two-day Technology & Bharatiya Bhasha Summit.
 - The summit aims to facilitate a seamless transition from the current education ecosystem to one rooted in Bharatiya languages, in line with the NEP-2020 vision and to set the course for a technologically enriched future for Bharatiya languages in education

Do you know?

- The Government of India has proposed to celebrate the birthday of renowned Tamil poet and freedom fighter Mahakavi Chinnaswami Subramania Bharati as Bharatiya Bhasha Divas (11 December).
 - The Bharatiya Bhasha Utsav, which started on 28th September 2023 will run for 75 days and will culminate on 11th December 2023.

Live Mint: Environment

GRAP in action: Centre's action plan comes into effect in Delhi from today to check pollution. Know details

2 min read • Updated: 01 Oct 2023, 10:25 AM IST





Livemint

The Graded Response Action Plan, a set of anti-air pollution measures, came into effect in Delhi-NCR. The plan includes restrictions on vehicles and bans on coal and firewood use when air quality is poor.



What is Graded Response Action Plan?

- The Graded Response Action Plan is a set of anti-air pollution measures, generally implemented in Delhi-NCR during the winter.
- The Commission for Air Quality Management (CAQM), an autonomous body tasked with improving the air quality in Delhi and its adjoining areas, made crucial changes to the Graded Response Action Plan (GRAP) last year and again in July.
- The new changes include strict restrictions on the plying of obsolete vehicles and a complete ban on the use of coal and firewood in eateries, restaurants and hotels when the Air Quality Index (AQI) breaches the 200-mark.