theIAShub

the IAS hub
Be Your Dream.

OCTOBER
3

CRUX 10

10 News. 10 Sources. One Place

THE HINDU
ET
BS
TOI
The Indian EXPRESS
livemint
pib
DownToEarth
FORTNIGHTLY ON POLITICS OF DEVELOPMENT, ENVIRONMENT AND HEALTH
Science Reporter
विज्ञान एवं प्रौद्योगिकी मन्त्रालय
MINISTRY OF SCIENCE AND TECHNOLOGY



MK Yadav Sir

Table of Contents

1. Nobel Prize 2023 (Medicine)
2. Cholera Disease
3. IGMS 2.0
4. EL-NINO
5. Lal Bahadur Shashtri
6. Open Defection Free
7. GHGs Emissions
8. FCA Act 2023
9. Old Pension Scheme
10. Hazardous Chemicals

THE HINDU

Page 1

NOBEL PRIZE 2023 (MEDICINE)

(Syllabus: GS Paper 3 – Sci & Tech)

Medicine Nobel 2023 goes to duo who paved the way for mRNA COVID vaccines

The Hindu Bureau

The 2023 Nobel Prize in Physiology or Medicine has been awarded to Hungarian biochemist Katalin Karikó and American physician-scientist Drew Weissman. Announcing the names on Monday, the Royal Swedish Academy of Science said they had been feted for "discoveries concerning nucleoside base modification that enabled the development of effective mRNA vaccines against COVID-19".

Dr. Karikó is only the 13th woman to win the prize.

That the citation mentions the pandemic shows the effect mRNA vaccines had on its evolution as well as how the global disaster became an opportunity for the vaccine technology to showcase its potential.

mRNA stands for messenger RNA, a type of molecule that carries instructions from the DNA to a cell's cytoplasm, where those messages are 'read' to produce various proteins. In the late 1980s, scientists realised that mRNA could become the basis for a new kind of vaccines if some hurdles could be overcome.

The idea was to inject the body with a modified mRNA that would instruct cells to build a certain protein, which could then provoke the body's immune system to 'attack' it as well as prepare itself to encounters with the same protein in future. This protein could be something produced by a virus – such as the spike protein of SARS-CoV-2. But the mRNA would have to survive its journey inside the body and be able to enter a cell.

Dr. Karikó and Dr. Weissman began to collaborate in the late 1990s. They and other scientists published many studies elucidating the steps from delivering mRNA into a body to the immune system responding. But one problem remained. The immune system sensed the synthetic mRNA to be a foreign substance that needed to be eliminated but not the cells' mRNA. Why?

A study they published in 2005, with Michael Buckstein and Houping Ni, had the answer: the cells' mRNA underwent chemical reactions that modified it in certain ways, whereas the synthetic mRNA remained unchanged.

CONTINUED ON » PAGE 10

Nobel for Medicine

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

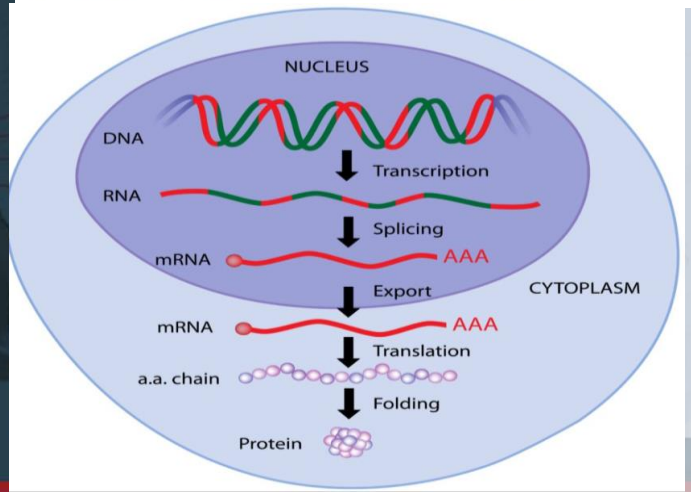


Katalin Karikó



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



Context: Recently, the **2023 Nobel Prize** for Medicine was jointly awarded to United States scientists **Katalin Kariko and Drew Weissman** for their pioneering research on nucleoside base modifications that paved the way for the development of highly effective **messenger ribonucleic acid (mRNA) vaccines against COVID-19**.

Nobel Prize

- **Established by**: Alfred Nobel (inventor of Dynamite)
- Awarded to those who have conferred the greatest benefit to humankind, during the preceding year
- **First awards** were handed out in 1901.
- **Field**: Physics, Chemistry, Physiology or Medicine, Literature, Economics, and Peace.
- **Prize Ceremony is held**: Stockholm, Sweden, in December every year
- **Prize**: Gold medal, a diploma, and a monetary award
  - Nobel Prize **cannot be given posthumously** (after death).
- **First Indian Nobel Laureate**: Rabindranath Tagore for Literature, 1913.
- **First Indian Woman Nobel Laureate**: Mother Teresa for Peace, 1979

Messenger RNA (mRNA)

- **About:** It is a type of **single-stranded RNA** involved in protein synthesis.
  - mRNA is made from a DNA template during the **process of transcription**.
  - The role of mRNA is to **carry protein information** from the DNA in a cell's nucleus to the cell's cytoplasm (watery interior), where the **protein-making machinery r**eads the mRNA sequence and translates each three-base codon into its corresponding amino acid in a growing protein chain.

THE HINDU

Page 7

CHOLERA DISEASE

(Syllabus: GS Paper 2 – HEALTH)

World reported twice as many cholera cases in 2022 as in 2021: WHO

Most cholera cases continue to be reported from Africa and Asia, with Europe accounting for a few "imported cases"

DATA POINT

The Hindu Bureau

Cholera is a water-borne disease caused by two strains called O1 and O139 of the bacteria *Vibrio cholerae*. Of these, O1 is responsible for almost all outbreaks; outbreaks of O139 are rare and none have been recorded outside Asia. According to the World Health Organization (WHO)'s weekly epidemiological record, published on September 22, the world reported more than twice as many cholera cases in 2022 as it did in 2021 (**Chart 1**). Between these years, more than twice as many countries also reported at least 10,000 suspected as well as confirmed cases of cholera.

Both these trends suggest a reversal of a short-term trend, of declining prevalence since 2019. The reversal also complicates a target the WHO specified in 2017, to reduce the number of cholera deaths worldwide by 90% by 2030. According to the United Nations health body, "Cholera transmission is closely linked to inadequate access to clean water and sanitation facilities." *Vibrio cholerae* bacteria also favour warmer waters with lower salinity. All these conditions are created as a result of climate change, which is projected to increase the risk of cholera in the SSP5-8.5 emissions scenario.

A June 2023 study by researchers at the University of Florida found that "*Vibrio* pathogens have a unique ability to 'stick' to microplastics, and that these microbes might be adapting to plastic", including in the open ocean, according to a statement by the National Science Foundation.

In response to the world's growing cholera burden, and while waiting for investments in manufacturing to bear fruit, the body that manages the emergency stockpile of the oral cholera vaccine shrank the recommended vaccination regime from two doses to one.

According to the report, most cholera cases continue to be reported from Africa and Asia, with Europe accounting for a few "imported cases" (**Chart 2 and Map 3**).

In Africa, cases were more spread out in 2022 than they were in 2021, which the report qualifies as no single country having reported more than 25% of all cases and 30% of all deaths. The report also says that between 2021 and 2022, the continent reported 29% fewer cases and 52% fewer deaths. This isn't the good news it appears to be: in 2021, Nigeria had a large cholera outbreak that accounted

Cases on the rise

The charts are sourced from the World Health Organization (WHO)'s weekly epidemiological record, published on September 22, 2023



Chart 1| The chart shows year-wise reported cholera cases between 1989 and 2022

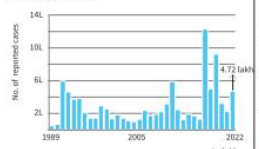
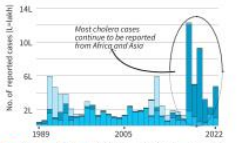
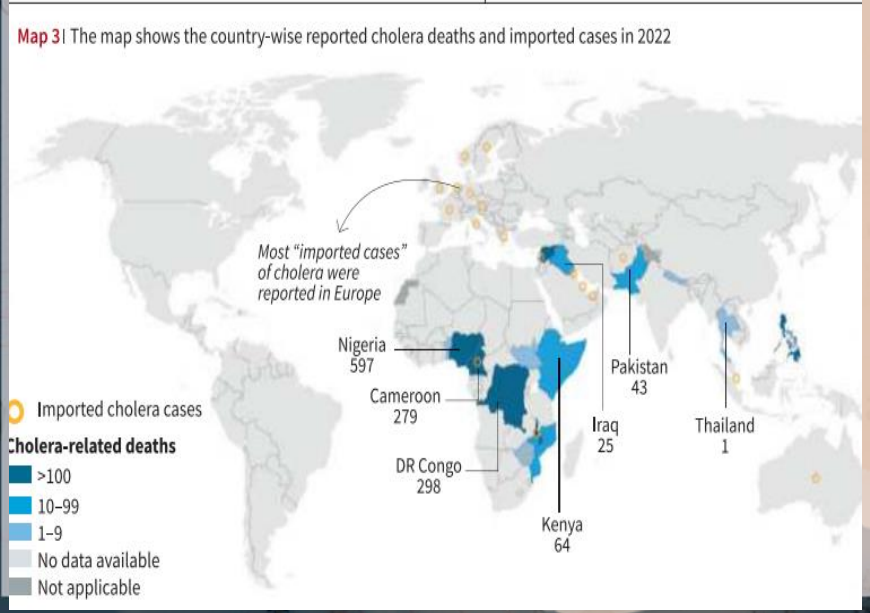


Chart 2| The chart shows year-wise cholera cases reported to WHO across continents



Map 3| The map shows the country-wise reported cholera deaths and imported cases in 2022



Context: According to the **World Health Organization (WHO)**, the worldwide incidence of cholera **cases in 2022 has doubled** in comparison to the previous year, signaling a concerning rise in the disease's prevalence.

- According to the report, **most cholera cases** continue to be reported from **Africa and Asia, with Europe** accounting for a few "imported cases.

Cholera Disease

- **About**: A life-threatening infectious disease and a public health hazard.
- **Caused by**: An acute, diarrheal illness caused by infection of the intestine with the **bacterium Vibrio cholerae (Bacterial disease)**.
- **Symptoms**: Profuse watery diarrhea, Vomiting, and Leg cramps.
- **Transmission**: A person may get **cholera by drinking water** or eating food contaminated with the cholera bacterium.
  - The disease can spread **rapidly in areas with inadequate** treatment of sewage and drinking water.
- **Vaccine**: Currently there are three WHO pre-qualified oral cholera vaccines (OCV), Dukoral, Shanchol, and Euvichol-Plus.
  - All three vaccines require two doses for full protection.
  - It is **not covered** in the Universal Immunization Programme (UIP).

PIB Sept 29

IGMS 2.0

(Syllabus: GS Paper 2 – Governance)

Dr Jitendra Singh launches the Intelligent Grievance Monitoring System (IGMS) 2.0 Public Grievance portal and Automated Analysis in Tree Dashboard portal of DARPG

Context: Recently, the union Minister of State (Independent Charge) Science & Technology, MoS Personnel, Public Grievances, Pensions launched the **Intelligent Grievance Monitoring System (IGMS) 2.0.**

Intelligent Grievance Monitoring System (IGMS) 2.0

- **About:** IGMS 2.0 is a **public grievance portal** and an **Automated Analysis** in Tree Dashboard portal under the Department of Administrative Reforms and Public Grievances **(DARPG)**.
- **Implementation**: IIT Kanpur.
- **Objective**: Dashboard includes providing instant tabular analysis of Grievances Filed & Disposed, State-wise & District-wise Grievances Filed, and Ministry-wise data.
  - It also aids officials in **identifying the root** cause of grievances.
  - This portal assists DARPG in generating draft letters for selected schemes/ministries, expediting the grievance redressal process by the concerned ministry/department, and is equipped with Artificial Intelligence (AI) capabilities.

CPGRAMS (Centralised Public Grievance Redress and Monitoring System)

- **About:** CPGRAMS is an online platform available 24x7 to citizens for lodging grievances related to service delivery with public authorities.
- It serves as a **single portal connecting** all Ministries/Departments of the Government of India and States.
- **Each Ministry and State** has role-based access to the system.
- Citizens can access **CPGRAMS through a standalone mobile application**, which is downloadable via Google Play store and integrated with UMANG.
- The status of grievances filed in CPGRAMS can be tracked using the **unique registration ID provided** during the complainant's registration.

LIVEMINT

Page 8

El Nino impact: Monsoon rains at five-year low; Aug driest ever

Rainfall during Jun to Sep was 94% of its long period average, the lowest since 2018

Reuters
feedback@livemint.com
MUMBAI

India's monsoon rainfall this year was its lowest since 2018 as the El Nino weather pattern made August the driest in more than a century, the state-run weather department said.

The monsoon, which is vital for India's $3 trillion economy, brings nearly 70% of the rain the country needs to water crops and replenish reservoirs and aquifers.

Nearly half of the farmland in the world's most populous nation lacks irrigation, making the monsoon rains even more vital for agricultural production.

The summer rainfall deficit could make staples such as sugar, pulses, rice and vegetables more expensive and lift overall food inflation.

Lower production could also prompt India, the world's second-biggest producer of rice, wheat, and sugar, to impose more curbs on exports of these commodities.

Rainfall over the country during June to September was 94% of its long period average, the lowest since 2018, the India Meteorological Department (IMD) said in a statement.

The IMD had anticipated a rainfall deficit of 4% for the season, assuming limited impact from El Nino.

El Nino is a warming of Pacific waters that is typically accompanied by drier conditions over the Indian subcontinent.

The monsoon was uneven, with June rains 9% below average because of the delay in the arrival of rains, but July rains rebounding to 13% above average.

August was the driest on record with a 36% deficit, but again in September rainfall revived and the country received 13% more rainfall than the normal, the India Meteorological Department added.

The erratic distribution of monsoon rains has led India, the world's largest rice exporter, to limit rice shipments, impose a 40% duty on onion exports, permit duty-free imports of pulses, and could potentially result in New Delhi banning sugar exports.

August was the driest on record with a 36% deficit, but again in September rainfall revived and the country received 13% more rainfall

The country is expected to receive normal rainfall during October to December, the weather department said, adding that temperatures were likely to remain above normal in most of the country during October.

EL-NINO
(Syllabus: GS Paper 1 – Geography)

Context: India recently experienced its **lowest monsoon rainfall this year** since 2018, with August being the driest month in over a century **due to the El Nino weather pattern**, as reported by the state-run weather department.

- **Lower production could also prompt India**, the world's second-biggest producer of rice, wheat, and sugar, to impose more curbs on exports of these commodities.

El Nino

- **About**: It is the name given to the occasional development of warm ocean surface waters **along the coast of Ecuador and Peru**. El Niño events occur irregularly at intervals of 2–7 years, although the average is about once every 3-4 years.
  - After an El Nino event weather conditions **usually return back to normal**.
  - However, in some years the trade winds can become extremely strong and an abnormal **accumulation of cold water can occur** in the central and eastern Pacific. This event is called a La Niña.
- **Impact on monsoon rainfall in across the globe**: El Nino impacts ocean temperatures, the **speed and strength of ocean currents**, the health of coastal fisheries, and local weather from Australia to South America and beyond.
  - Rainfall increases **drastically in South America, contributing to coastal flooding** and erosion.
- **Impacts on monsoon rainfall in India**: El Nino and Indian monsoons are inversely related.
  - The most **prominent droughts in India** – six of them – since 1871 have been El Nino droughts, including the recent ones in 2002 and 2009
  - However, **not all El Nino years led to a drought in India**. For instance, 1997/98 was a strong El Nino year but there was no drought (Because of IOD).

On the other hand, a moderate **El Nino in 2002 resulted** in one of the worst droughts.

- **El Nino directly impacts India's agrarian economy** as it tends to lower the production of summer crops such as rice, sugarcane, cotton, and oilseeds.

Live Mint

Oct 2

LAL BAHADUR SHASTRI

(Syllabus: GS Paper 1–History)

PM Modi pays tribute to Lal Bahadur Shashtri, says 'Jai Jawan, Jai Kisan resonate even today'



Context: Prime Minister of India recently paid his respects to **Lal Bahadur Shashtri** on the occasion of his **birth anniversary**.

Lal Bahadur Shashtri

- **Born**: On October 2, 1904, in Mughalsarai, United Provinces (modern-day Uttar Pradesh).
- **Early life:** He was only sixteen when he left his schooling to join the Non-Cooperation Movement. He was awarded with the bachelor's degree from the Kashi Vidya Peeth in Varanasi.
- **Death:** 11 January 1966.
- **Tenure as PM:** He was the **Prime Minister of India** for nearly eighteen months from **9 June 1964 to 11 January 1966.**
  - During his short tenure he was ineffectual in dealing with the economic crisis and food shortage in the nation.
- **Famous Slogan:** Jai Jawan Jai Kisan.
- **Two Major Challenges**: Post-war economic recovery from the 1962 conflict with China.
- **1965: Pakistan war:** He created the slogan of **"Jai Jawan Jai Kisan" ("Hail the soldier, Hail the farmer"),** underlining the need to boost India's food production.
- Apart from emphasizing the **Green Revolution**, he was instrumental in promoting the **White Revolution.**
- **Bharat Ratna:** He was posthumously (first) awarded the Bharat Ratna in 1966.

PIB

Sept 29

OPEN DEFECTION FREE

(Syllabus: GS Paper 2 – Govt Schemes)

PM congratulates Jammu and Kashmir for 100% J&K UT villages achieving ODF Plus status

Context: Recently, the Prime Minister of India commended Jammu and Kashmir for the remarkable **achievement of all 100% J&K UT villages** attaining **ODF Plus status** in the 'Model' category during phase II of the Swachh Bharat Mission (Grameen).



Open Defecation Free (ODF)

- The **Ministry of Drinking Water and Sanitation** has adopted a uniform definition of ODF (open defecation-free) :
  - No visible feces was found in the environment/village; and
  - Every house as well as public/community institutions uses safe technology options for the disposal of feces.
- **ODF +:** ODF+ focuses on toilets with water, maintenance and hygiene.
- **ODF plus village:** It is defined as "a village which sustains its ODF status, ensures solid and liquid waste management, and is visually clean."
- **ODF ++**: Focuses on toilets with sludge and septage management.

Swachh Bharat Mission Grameen (SBM-G)

- **Launched**: In 2014.
- **Nodal Ministry**: Ministry of Jal Shakti.
- **Aim**: To accelerate the efforts to achieve universal sanitation coverage and to put focus on sanitation.
- **Implementation**: As a nationwide campaign/Janandolan which aimed at eliminating open defecation in rural areas.
- **SBM-G Phase-I**: The rural sanitation coverage in the country at the time of the launch of SBM (G) on 2nd October 2014 was reported as 38.7%.
- **More than 10 crore individual toilets** have been constructed since the launch of the mission, as a result, rural areas in all the States have declared themselves **ODF as on 2nd October, 2019.**
- **SBM(G) Phase-II**: It emphasizes the sustainability of achievements under phase I and to provide adequate facilities for Solid/Liquid & Plastic Waste Management (SLWM) in rural India.

DTE

Sept 29

GHGs EMISSIONS

(Syllabus: GS Paper 3 – Env and Eco)

International Shipping emissions increased by 20% in the last decade: UNCTAD

Shipping industry contributes to nearly three per cent of global greenhouse gas emissions

Greenhouse Gases (GHGs)

- **About:** A greenhouse gas is a gas that absorbs and emits infrared radiation.
- They **absorb infrared energy (heat energy) emitted from the earth's surface** and reradiate it back to the earth's surface.
- **Most abundant greenhouse gases in Earth's atmosphere:** Water vapour, Carbon dioxide, Methane, Nitrous oxide, Ozone, Chlorofluorocarbons, Hydrofluorocarbons.
- **Other GHGs:** Carbon monoxide, fluorinated gases, chlorofluorocarbons (CFCs), black carbon (soot), and brown carbon.

Context: According to the United Nations Conference on Trade and Development (UNCTAD), **greenhouse gas (GHG) emissions** from international shipping have increased by 20% over the past decade.

Key Points

- The **shipping industry is responsible** for nearly three percent of global GHG emissions and handles over 80% of the world's trade volume.
- The sector is grappling with the **challenge of transitioning to alternative fuels** since 98.8% of the global fleet continues to rely on conventional fuels.
- Only **1.2% of vessels** use alternative fuels, such as **liquefied natural gas** (LNG), battery/hybrid, liquefied petroleum gas **(LPG)**, and methanol.
- To combat emissions, the International Maritime Organization has established a goal of achieving **net-zero GHG emissions** by approximately **2050**.
- Additionally, it aims to ensure that zero or near-zero GHG fuels constitute at least five percent of the energy used in international shipping by 2030.

UNCTAD

- **Establishment**: In 1964.
- **Aim**: To promote development-friendly integration of developing countries into the world economy.
- **Headquarters**: Geneva in Switzerland.
- **Reports Published by**: Trade and Development Report, World Investment Report, The Least Developed Countries Report, Information and Economy Report, Technology and Innovation Report, and Commodities and Development Report.

HINDUSTAN TIMES Page 4

FCA ACT 2023

(Syllabus: GS Paper 3 – Env & Eco)

Central act amendment to benefit firms owning deemed forest land in Aravallis

Jayashree Nandi and Leena Dhankhar
letters@hindustantimes.com

NEW DELHI: The Forest (Conservation) Amendment Act, 2023 will benefit real estate companies that own land in what was to be declared "deemed forest" in Haryana's Aravallis, documents show.

For example, in Mangar village spread over 4262 acres (of which 3810 acres is hill area), a large part of land that should have been identified as forest as per dictionary meaning is in fact owned by three private companies, Ireo Private Limited, M3M India Private Limited, and Patanjali Yogpeeth Trust ,and a web of their subsidiaries . A part of the biodiversity rich sacred grove, Mangar Bani, one of the last remaining patches of primary forest in this entire region, is also owned by one of these companies, papers show.

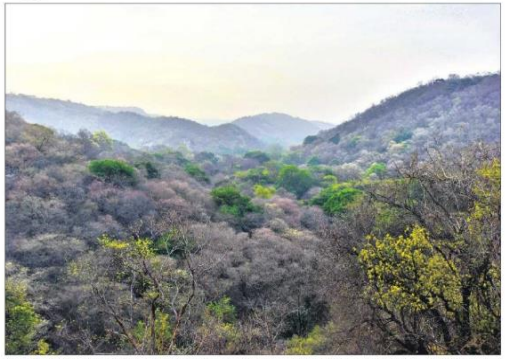
HT has seen latest jamabandi records of 2018-19 available on Haryana government's website and other documents that show nearly 1,000 acres of Mangar's forest-like area, also denoted as gair mumkin pahar (uncultivable land) is owned by these three companies. To be sure, other private companies also own smaller patches of land here.

Ireo, M3M and Patanjali did not respond to detailed questionnaires. A person who answered the phone at one of Ireo's offices said management was unavailable to speak.

Speaking on condition of anonymity, a representative of Patanjali Yogpeeth Trust said a Court judgment that dealt with forests identified as per dictionary meaning of the word or deemed forests. The Supreme Court's December 12, 1996 verdict in TN Godavarman Thirumulpad vs. Union of India & Others case directed that "forests" any deemed forests. Even Mangar Bani sacred grove, a dense forest with rich biodiversity, was awaiting a deemed forest tag. Haryana presently has a forest area of only 3.63% of the total geographical area of the state.

Speaking on condition of anonymity, a senior official from the Haryana forest department said tion zone, which is also recorded as forest. The rest of the Aravalli area – around 2,500-odd acres – should have been declared as deemed forests as per Supreme Court's 1996 Godavarman judgment but now the FC Act amendment seems to have removed that category," said Chetan Agarwal, Gurugram based forest analyst. tion and hence we have nothing to say," said an official from Haryana forest minister, Ch Kanwar Pal's office.

A 2019 environmental clearance form of Kenwood Mercantile for a Proposed Tourism & Recreation Project on Land measuring 388 acres at Faridabad-Gurugram Road said the project



The Haryana government in June 2016 issued a notification stating that Mangar Bani was a "no-construction zone". SANJEEV VERMA/HT ARCHIVE

bandi documents and company papers we find that these three companies and their subsidiaries or related companies own or control around 1000 acres in Mangar," said Agarwal who has tracked and analysed the web of companies and land documents.

How land was privatised in Mangar

The Aravalli land in Mangar were common lands that belonged to the village community and were recorded as shamlat deh (common land in revenue records) since pre-independence. Subsequently it was transferred to the panchayat under the Punjab Village Common Lands Act 1961 and recorded as panchayat deh (panchayat land in revenue records) in 1963-64 jamabandi.

Around 1973-74, by mutation no 155, around 3809.63 acres of land here was mutated from panchayat deh to shamlat deh and thereafter transferred to the village proprietors (thereby transferring ownership from the panchayat to joint ownership of the village proprietors). The mutation was sanctioned on the basis of an order of a sub-judge in Ballabhgarh dated March 14, 1973 according to Agarwal.

"Some villagers from Mangar moved the local court to get a judgement in their favour to privatise the common land. That was the beginning of how land started to be sold to private developers in Mangar. Thereafter, several other villages near Mangar also moved court to get an order to fraudulently privatise Aravalli common lands. This was followed by sale notified.

One of the contentious provisions of the new law is that it exempts unrecorded deemed forests from the modified law on forest conservation.

The FC Amendment Act states that it will recognise land that has been declared or notified as a forest in accordance with the provisions of the Indian Forest Act, 1927 or under any other law. It will also recognise land that is not recognised as forest under any law but has been recorded in Government records as forest, as on or after the October 25, 1980. The provisions of this clause shall not apply to land, which has been changed from forest use to use for non-forest purpose on or before December 12, 1996. And hence, it doesn't recognise land which meets the definition of forest but remains unrecorded as forest.

In an interview to HT on August 11, 2023,Union environment minister Bhupender Yadav explained why forests with dictionary meaning are exempted from the purview of the Act.

"The applicability of the Forest (Conservation) Act in various types of land has been dynamic – that is, initially provisions of the Act were being applied to the notified forest land only. Subsequently, after an SC judgement of December 1996, the Act was made applicable to revenue forest land or in lands which were recorded as forest in government records and to areas which look like forest in their dictionary meaning. Many such lands were already put to non-forestry use such as habitations, institutions.

Aravalli Ranges

- **Location:** They stretch for a **distance of about 720 km** from Himmatnagar in Gujarat to Delhi, spanning Haryana, Rajasthan, Gujarat, and Delhi.
- **Formation**: The Aravallis date back to millions of years when a pre-Indian subcontinent collided with the mainland Eurasian Plate.
- **Highest Peak**: Guru Shikhar Peak on Mount Abu
- **Mineral Resources**: Copper, zinc, lead, and marble.
- **Two Sections of Aravalli**: Sambhar-Sirohi ranges, and the Sambhar-Khetri ranges.

Context: Forest (Conservation) Amendment Act, 2023 to Offer Gains to Real Estate Firms Holding '**Deemed Forest' Land in Haryana's Aravallis.**

- The amendment **removes the protection of forest land** such as this derived from a 1996 Supreme Court judgment that dealt **with forests identified as per the dictionary** meaning of the word deemed forests.

Forest Conservation Amendment Act 2023

- **Exempted Categories of Land**: The Act exempts some types of land from the Act, including forest land along a railway line or a public road maintained by the government.
- **Assignment/Leasing of Foreign Land:** The Act extends the prior approval requirement for assigning forest land to all entities, including government-owned ones. The approval must be subject to the terms and conditions prescribed by the central government.
- **Land Under the Purview of the Act**: It defines forest land as either land that is notified as a forest under the IFA, 1927 or any other law, or land that is notified as a forest on or after Oct 25, 1980, in a government record.
- **Permitted Activities in Forest Land**: The Act restricts the de-reservation of forests or use of forest land for non-forest purpose**s, but the central government may approve such use with conditions.**

INDIAN EXPRESS Page 11

OLD PENSION SCHEME (OPS)

(Syllabus: GS Paper 3– Economy)

BEHIND STATE GOVERNMENTS DEMANDING BETTER PENSION PAYMENTS

State govt employees regularised mid-career blame NPS for lower pay

ANCHAL MAGAZINE
EW DELHI, OCTOBER 2

MID THE ongoing debate over he switch to the Old Pension cheme (OPS), states are learnt to ave flagged concerns over a igh number of government em- loyees who were regularised nto government service mid-ca- eer, resulting in a lower pension ayout due to less amount of ontributions, compared with ull-service government employ- es.

Some states, such as Himachal Pradesh, Chhattisgarh re facing this issue as they have large number of employees whose total years of service is round 10 years, an issue that has lso been raised in the discus- ions of the Centre-appointed ommittee to look into improv- ng the National Pension System NPS) for government employ- es, people in the know said.

This is being viewed as one of he significant reasons for an in- ccurate representation of the es- imate of the returns and the ension payout under the NPS mid rest of the government em- loyees, especially serving em- loyees who are yet to retire. oncerns have been triggered af-



Some states have now specifically made demand for an assured pension linked to the minimum of pay level. File

ter the regularisation of employees, such as panchayat workers, teachers as regular government employees is seen to be the reason for a surge in the number of estimated beneficiaries from the pension scheme in the states. The contention is that the regularised employees have a lower contributory period for availing the pension and hence, will get a lower payout as against the regular government employee.

"In many of the states there are Panchayat employees, teachers etc who originally were not government employees and then at some point they get regularised or converted into government employees. So they come into government service, let's say, at the age of 50 years. If you come in at 50 years and you retire at 60 years, then in a contributory scheme, you will obviously get a very low pension compared to a flat 50 per cent for a full service. The normal government employees get recruited by examination and come at an age of let's say 30 years or below…they usually have a minimum 25-year career. The outcome of NPS with a 25-year career is very different from the outcome of an NPS when somebody has a very short career of a few years. But the people who have actually retired till now are people with very short services and those with NPS, which came in 2004, would not have retired as of now…many people are comparing the pension of NPS with this and saying it is much lower than the normal pension. The point is these are people who have only 5-10 years of service. Obviously, their pensions will be very low," a person aware of the discussions said.

About two-three states including Chhattisgarh, Himachal Pradesh are learnt to have provided their insights on the issue of the regularisation of government employees and the low pension payouts to such employees in their discussions. People aware of the Centre-state discussions insist this issue is different from the debate over the assured returns and market uncertainty for returns under the NPS.

"On an average they might actually get a decent pension (under NPS). But the people who have less than the full service, it is in the nature of a contributory scheme that if you don't contribute for enough years, you won't get a good pension. So the problem seems to have become more noticeable for people because they are seeing these examples (of regularised employees) and those examples have very low pensions compared to OPS. They (regularised employees) are the ones who are retiring of late, nobody from NPS would have retired yet as the system itself came into place in 2004. They give their example to somebody saying they are getting only some amount of pension, which creates a sense of alarm among the serving people. But it may not be that bad for a full career government employee. For the majority of the employees, it will be much better," the person said.

The demand for switching to the Old Pension Scheme has flared up again ahead of assembly polls scheduled in several states and Lok Sabha elections next year.

Thousands of government employees – teachers, doctors, clerks, peons – and those working in the PSUs from Uttar Pradesh, Uttarakhand, Rajasthan, Madhya Pradesh, Chhattisgarh, Himachal Pradesh, Haryana, and other states participated in the "Pension Shankhnaad Rally", organised by National Movement for Old Pension Scheme (NMOPS) at Ramlila Maidan in Delhi on Sunday urging the BJP-led NDA government to reinstate the Old Pension Scheme before the polls.

Context: State Governments demand **improved pension payments** amid controversy over NPS impact on mid-career regularized.

- Some states, such **as Himachal Pradesh, Chhattisgarh are facing this issue** as they have large numbers of employees whose **total years of service is around 10 years**, an issue that has also been raised in the discussions of the Centre-appointed committee to look into improving the National Pension System NPS) for government employees.

Old Pension Scheme (OPS)

- **About:** The scheme assures life-long income, post-retirement.
  - It is also known as the **"Defined Benefit Scheme,"** providing government employees with 50 percent of their basic salary to secure their future.
- **Amount of pension derived**: 50 per cent of the last drawn salary
- **Avail**: Only government employees.
- **Scheme was discontinued:** in 2004.

New Pension Scheme (NPS)

- **About**: This pension programme is open to employees from the public, private, and even the unorganized sectors except those from the armed forces.
- **Introduced by**: Central government in April 2004.
- **Objective**: To invest in a pension account at regular intervals during the course of their employment.
- **Nodal agency**: Pension Fund Regulatory and Development Authority (PFRDA)
- **Eligibility**: Any Indian citizen between 18 and 60 years can join NPS. NRIs (Non-resident Indians) are also eligible to apply for NPS.
- **Permanent Retirement Account Number (PRAN)**: Every NPS subscriber is issued a card with a 12-digit unique number called PRAN.
- **Minimum contribution in NPS**: The subscriber has to contribute a minimum of Rs. 6,000 in a financial year.

DTE Sept 29

HAZARDOUS CHEMICALS
(Syllabus: GS Paper 2 – Health)

Delegates at UN Bonn summit adopt new framework to reduce risks from hazardous chemicals

Context: Delegates at a recent **United Nations (UN) Conference** in the German city of Bonn have recently adopted a **new global framework aimed at reducing** environmental risks associated with chemicals and waste.

Key Points of Summit

- The framework is based **on 28 targets**, designed to improve responsible management of chemicals and waste.
- **Aim**: To establish stronger connections with other important global agendas, including climate change, biodiversity, human rights, and health.
- **National governments are committed** to formulating policies and regulations in order to reduce chemical pollution by 2030 as well as promoting safer alternatives.
- **Industries** also pledged **to manage chemicals** in order to reduce pollution and its adverse impacts.

Hazardous Chemicals

- **About:** A hazardous chemical is one that possesses properties capable of causing harm to human or animal health, damaging the environment, or affecting property.
- This term encompasses various substances, including chemical dust, vapors, smoke, fumes, mixtures, solvents, detergents, acids, alkalis, petroleum, and paints.

Categories of Hazardous chemicals

- **Flammable or explosive chemicals:** Petroleum, TNT, and plastic explosives.
- **Chemicals that can irritate or corrode** the skin, lungs, and eyes, like acids, alkalis, and paints, as well as their fumes.
- **Toxic chemicals**: Carbon monoxide, hydrogen sulfide, and cyanide.

Secure Top Rank with theIAShub Courses

Prelims 2023 Courses

01 Prelims Crash Course Score Enhancement Program (SEP)

02 INA Current Affairs (Prelims)

03 TACKLE - Prelims Test Series

04 Geography - Prelims Crash Course

Quality Enrichment Courses (Mains 2023)

01 Quality Enrichment Program (QEP)

02 Science of Answer Writing (SAW)

Prelim Cum Mains 2024 Courses

01 NEEV GS Foundation 2024/25

02 INA Current Affairs Pre Cum Mains - 2024

FREE Download PDF

Login to theiashub.com

- Aaj Ka Quality Enrichment (Toppers' Favourite PDF)
- News-CRUX-10 (10 News. 10 Sources. One Place)
- Monthly Editorials (The Hindu & Indian Express)
- Daily Quiz (Prelims)
- Government Schemes & Ministry Wise Year End Review
- Free Enrichment PDFs (Tailor Made Crisp Study Material)



Log On To Our Unique
Free Answer Writing Sessions with Toppers (FAST) Portal
& Start Practicing!

SCAN HERE

9560082909

t.me/theiashub

/mkyadav

www.theiashub.com

www.theiashub.com