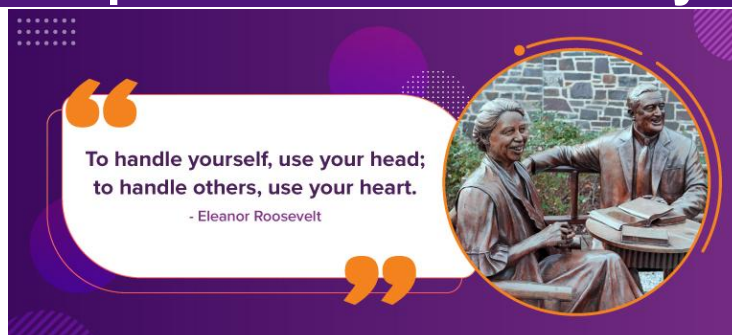


27 Mar 2023: UPSC Exam Comprehensive News Analysis



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Nothing here for today!!!

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Nothing here for today!!!

C. GS 3 Related

Category: ENVIRONMENT AND ECOLOGY

1. What is biotransformation technology and how can it reduce packaging waste?

Syllabus: Environmental pollution (plastic pollution).

Mains: Biotransformation technology and its significance.

Prelims: Biotransformation technology.

Context

A startup in the U.K. has developed a technology called “biotransformation” that can make plastics biodegradable.

Background Details

- According to a report(2022), Amazon generated approximately 321 million kilograms of plastic waste from packaging materials in 2021. However, Amazon has refuted the claim.
- A U.K.-based startup claims to have developed a process that can alter the state of plastics and make them biodegradable. This process is called “biotransformation”.

Biotransformation Technology

- Biotransformation Technology is a method in which the plastics that escape refuse streams are processed efficiently and broken down.
- The plastic made through this process looks like conventional plastic without any compromise on the quality.
- After expiring, the product is exposed to the external environment where it self-destructs and transforms into bioavailable wax.
- Further, the wax is consumed by microorganisms and converted into CO₂, water, and biomass.
- The technology will not leave behind any microplastics.

Need of Biotransformation

- India generates 3.5 billion kgs of plastic waste annually. Moreover, the per capita plastic waste generation has doubled in the last five years.
- Almost one-third of the waste comes from packaging materials.
- As per Statista, the plastic packaging waste from e-commerce firms across the world in the year 2019 was above one billion kilograms.
- It was also estimated that around 10 million kgs of Amazon's plastic packaging ended up in the freshwater and marine ecosystems of the world as pollution.
- However, both Amazon and Flipkart have eliminated [single-use plastics](#) across their supply chain in 2021.
- The increase in the cost as compared to conventional plastic is relatively small.
- The two main sectors that can use this technology to reduce waste are food packaging and healthcare industries.
- Some Indian firms deploy such technologies for non-woven hygiene products such as diapers, sanitary napkins, facial pads, etc.

Government Initiatives to reduce plastic

- Indian government has introduced Plastic Waste Management Rules.
- The government has also imposed a ban on single-use plastics across the country.
- In order to bring all the stakeholders together to track the progress in the country, the National Dashboard on Elimination of Single-Use Plastic and Plastic Waste Management was also launched.
- An [Extended Producer Responsibility \(EPR\)](#) portal is introduced for ease of compliance and accountability traceability of the producers, importers, and brand owners.
- A mobile app is also developed to address grievances related to plastic waste in an area.

Other measures to reduce plastic pollution

- A jute or paper-based packaging can cut down plastic pollution.
- Despite being costly and bulky, wooden packaging is also an option.
- The other alternatives include using bagasse, coir, rice and wheat bran, plant and agricultural residue, banana and areca leaves, and cloth.

Nut graf: The biotransformation technology is a promising technology for reducing plastic pollution, as it will alter the state of plastic and make them biodegradable.

Category: ECONOMY

1. Net direct tax growth for 2022-23 to slow to 15%

Syllabus: Indian economy.

Mains: Net direct tax growth.

Prelims: Status of Indian Economy.**Details**

- As per the top Finance Ministry official, net direct tax collections growth in India for the full financial year will moderate to 15%.
- Notably, it was 17% in early March for the year 2022-23.
- Moreover, the government's net receipts from direct taxes had grown about 49% in 2021-22 to approximately ₹14.09 lakh crore.
- In mid-December 2022, inflows of direct tax rose by nearly 20%. However, each successive month recorded a slight slowdown in the growth rate.
- On 10th March 2023, it declined to 16.8% to approximately ₹13.73 lakh crore.
- It is 96.7% of the Budget Estimates for 2022-23 and 83.2% of the Revised Estimates for direct taxes.
- It is expected that the financial year will close at about 15% growth on the net direct tax front.
- The factor behind the higher growth in the earlier Financial Year 2022-23 is that the due dates for taxpayers to remit their dues were not relaxed (unlike 2021-22).

Nut graf: As the Financial Year 2022-23 comes to an end, it is estimated that net direct tax growth would slow to 15%.

D. GS 4 Related

Nothing here for today!!!

E. Editorials**Category: GOVERNANCE****1. The cost of insurance-based funding**

Syllabus: Government Policies & Interventions in Health Sector

Mains: Various issues with healthcare financing in India

Context: This article discusses the gains and the loss due to funding of the health care sector through insurance companies.

Introduction:

- The Tamil Nadu model of public health is renowned for its success in providing quality health services at an affordable cost especially to the rural people. Tamil Nadu is the only

state with a distinctive public health cadre in the district level and also the first state to enact a Public Health Act in 1939.

- The Tamil Nadu public health model has ensured equity in the delivery of health care, led to big improvements in maternal and infant mortality and universal immunisation coverage, and led to a low total fertility rate compared to the all-India average.
- This has been mainly due to changes in funding for healthcare in the last decade. The funding mix varies from grants from the National Health Mission to the Chief Minister's Comprehensive Health Insurance Scheme (CMCHIS).

Benefits of funding through insurance companies:

- The indirect funding through the insurance companies has ushered in massive changes in the functioning of the public health sector.
- The central gain is the decentralisation of medical and healthcare administration.
- Powers have been substantially transferred to the heads of the department to purchase drugs which have cut red tape.
- Decentralisation has empowered individual departments to prioritise their needs and hasten decisions in patient care in accordance with evidence-based medical advancement.

Issues:

- Due to decentralisation, every department in the medical college has become an individual establishment. These departments compete with one another to maximise profit and minimise losses.
- As a consequence, patients and their illnesses are seen through the lens of indemnity in secondary and tertiary healthcare systems.
- This could lead to the denial of claims, the imposition of high deductibles and copays, and other restrictions that can limit access to care.
- Negotiations with insurance companies have become cumbersome exercises for the public sector hospitals. Administrative delays by insurance companies have shifted the focus of hospitals from patient care, teaching and research to claiming money from companies.
- Contractual appointments of doctors and staff in district health societies have resulted in trust deficit and which leads to a compromise in the quality of service.
 - Young doctors under contractual appointments are not even eligible for reservation benefits in post-graduate medical education under the Tamil Nadu government in-service doctor's reservation scheme.
- Mere profit-loss calculation and treatment of public health as a health industry will lead to an erosion of compassion among health professionals.
- In Tamil Nadu, between 2012 and 2021, ₹7,783 crore was allotted in the Chief Minister's Comprehensive Health Insurance Scheme (CMCHIS) to insurance companies.

- Of this, only ₹2,895 crore has been claimed by government hospitals and the rest by private hospitals. This disproportionate 'diversion' of funds will further shrink funding to public hospitals.

Way Forward:

- A tax-funded model of Universal Health Care would ensure that healthcare services are available to all citizens without discrimination.
- It would also ensure that the burden of healthcare financing is shared by the government and the citizens, with the government taking the responsibility for providing healthcare services to all citizens.
- Such a model would also prioritise primary healthcare services, which are essential for promoting good health and preventing diseases.
- Additionally, a tax-funded model would ensure transparency and accountability in healthcare delivery.

***Nut Graf:** The Tamil Nadu model of public health has been successful in providing quality health services. Funding through insurance companies has led to decentralisation and empowered individual departments. However, issues such as competition, denial of claims may limit access to care and compromise quality of service.*

2. Internet Shutdowns

Syllabus: Government Policies & Interventions for Development

Mains: Need for better data collection and decision-making processes with respect to Internet shutdowns.

Context: Suspension of mobile internet by the Punjab government.

Key Details:

- Earlier this month, the Punjab government suspended mobile Internet and SMS services in the State for more than four days in the interest of public safety, to prevent incitement to violence and to prevent disturbance of peace and public order.
- The Software Freedom Law Center (SFLC), which keeps a count of Internet stoppages State-wise, has recorded eight such shutdowns in Punjab.
- Between 2012 and March 2023, the southern States recorded only six such shutdowns in this period. There was no instance of an Internet shutdown in Kerala.
- Elsewhere, except Himachal Pradesh, Mizoram and Sikkim, all the other States recorded at least one such instance, with Jammu and Kashmir, Rajasthan and Uttar Pradesh recording the highest number.

- According to Access Now, a non-profit that defends digital rights, 60% of all the Internet shutdowns recorded between 2016 and 2022 worldwide took place in India.
 - Over the past five years, India has recorded the highest number of shutdowns.
- Notably, such shutdowns are never or almost never implemented in most parts of Europe, North and South America and Oceania, while they are rampant in Africa and Asia.

Map 1 | The map shows the State-wise instances of Internet shutdowns between 2012 and March 2023

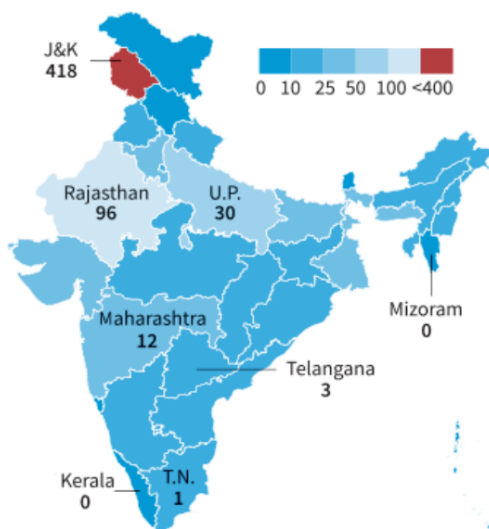


Chart 2 | The chart shows the number of Internet shutdowns recorded by Access Now, in India and globally

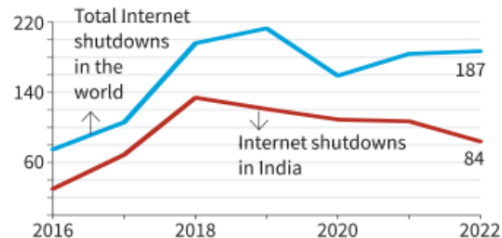


Table 3 | Top five countries in terms of Internet shutdown

| 2022 | 2021 | 2020 | 2019 | 2018 |
|-------------------|--------------------|----------------------|--------------------|--------------------|
| India (84) | India (106) | India (109) | India (121) | India (134) |
| Ukraine (22) | Myanmar (15) | Yemen (6) | Venezuela (12) | Pakistan (12) |
| Iran (18) | Iran (5) | Ethiopia (4) | Yemen (11) | Yemen/Iraq (7) |
| Myanmar (7) | Sudan (5) | Jordan (3) | Iraq (8) | Ethiopia (6) |
| Bangladesh (6) | Cuba/ Jordan (4) | *Eight countries (2) | Algeria (6) | Bangladesh (5) |

*Belarus/ Chad/ Pakistan/ Togo/ Sudan/ Venezuela/ Kenya/ Guinea

Image Source: The Hindu

Data collection on Internet shutdowns:

- The Union government does not collate data on Internet shutdowns imposed by the State governments.
- Collection of centralised data was “strongly recommended” by the Standing Committee on Communications and Information Technology, in 2021.
- The Committee wanted the reasons, duration, decision of the competent authority and of the review committees to be noted for every Internet shutdown, and for the information to be made public.

Cost of Internet shutdowns:

- A report by the UN High Commissioner for Human Rights in 2022 noted the significant impact of the shutdown on education and healthcare. Students are unable to access online classes and resources, while doctors and medical professionals are unable to access vital medical information and communicate with patients.

- A 2018 paper published by the Indian Council for Research on International Economic Relations estimated that India lost around \$3 billion between 2012 and 2017 due to shutdowns.
- Internet shutdowns have a severe impact on businesses, particularly in sectors such as e-commerce, information technology, and media.
- Shutdowns disrupt supply chains, leading to delays in delivery of goods and services. Small and medium-sized enterprises also face significant losses as they heavily rely on online platforms for sales and marketing.

Nut Graf: *The recent suspension of mobile internet and SMS services in Punjab by the government highlights the growing trend of internet shutdowns in India. Despite the serious consequences, data collection on the issue is inadequate.*

F. Prelims Facts

1. Trains to ply on 'world's highest rail bridge' in 2024

Syllabus: GS3- Railway.

Prelims: Chenab railway bridge.

Context: Trains will ply on the Chenab bridge by January-February 2024.

- Railway Minister Ashwini Vaishnaw announced that the trains will ply the Chenab Bridge, the world's highest railway bridge by January-February 2024.
- The bridge is at a height of 359 m. It should be noted that it is taller than the Eiffel Tower (330 m) in Paris.
- It has a length of 1.3 km. It will ensure trains run along the Udhampur-Srinagar-Baramulla Rail Link (USBRL) project.
- The government also plans to run Vande Bharat trains and Vande Metro trains between Jammu and Srinagar which will reduce the travel time from 7 hours to 3.5 hours.
- It should be noted that the foundation of the bridge has been built in a manner to sustain an earthquake of up to eight on the Richter scale.
- Nearly 28000 tonnes of steel have been used to construct the arch bridge.
- One of the major challenges was the construction of tunnels. There are 37 tunnels.
- It was highlighted that four cargo terminals will be constructed in Baramulla to ease trade for products like dry fruits, apples, handicrafts, pashmina fabric, and clothing.
- Though the bridge is endorsed as the world's highest bridge, it might lose the title to China's Daduhe railway bridge in Ludig along the Sichuan-Tibet Railway at a height of 380 m.

2. MGNREGA wage rates revised by up to 10% for 2023-24 fiscal year

Syllabus: GS2- Governance.

Prelims: MGNREGS rates.

- The wage rates under the [Mahatma Gandhi National Rural Employment Guarantee Scheme](#) for the financial year 2023-24 have been increased.
- The Ministry of Rural Development issued a notification in this regard on 24th march 2023. The wage hikes (ranging from ₹7 to ₹26) will come into effect from 1st April 2023.
- Rajasthan registered the highest percentage increase in wages from ₹231 in 2022-23 to ₹255.
- In 2022-23, the daily wage in Madhya Pradesh and Chattisgarh was ₹204. It has been increased to ₹221.
- The states with the lowest percentage increase are Karnataka, Goa, Meghalaya and Manipur.

3. ISRO puts 36 OneWeb satellites into orbit

Syllabus: GS3- Science and Technology.

Prelims: Development in the field of space.

- The heaviest payload rocket of the [Indian Space Research Organisation](#) carried 36 OneWeb satellites on board on 26th March 2023.
- It was launched from the Satish Dhawan Space Centre.
- Notably, it is the second mission for Network Access Associates Ltd., U.K. (OneWeb Group Company) as a part of a commercial agreement with NewSpace India Ltd. (NSIL) to launch 72 satellites into low-earth orbits (LEOs).
 - The first set of 36 satellites were launched in the LVM3-M2/OneWeb India-1 mission on 23rd October 2022.
 - OneWeb is a global communication network powered from space. It enables connectivity for governments, businesses, and communities, and implements a constellation of LEO satellites.
 - This is the 18th launch of OneWeb.
- The 43.5-metre-tall vehicle with a weight of 643 tonnes carried 36 OneWeb Gen-1 satellites totalling about 5,805 kg into a 450-km circular orbit with an inclination of 87.4 degrees.
- The LVM3 rocket had completed five consecutive successful missions (including Chandrayaan-2) and this was the sixth flight.

G. Tidbits

1. 'AUKUS focus is on submarine tech., there is no room for a fourth nation'

- The diplomatic sources highlighted that the major focus of the AUKUS is a submarine technology development and there is no room for other countries.
- However, there is a pillar-2 that can accommodate other countries/partners.
 - Pillar-2 emphasizes cooperation in technologies such as electronic warfare, cyberspace, and quantum.
- AUKUS focuses on technology and is very specific about developing strategically important capabilities to maintain stability.

2. New species of Moray eel named after Tamil Nadu

- A new species of Moray eel was discovered in the Mudasalodai fish landing centre off the Cuddalore coast.
- The species is named *Gymnothorax tamilnaduensis* after Tamil Nadu. Whereas the common name is Tamil Nadu brown moray.



Source: The Hindu

H. UPSC Prelims Practice Questions

Q1. Which of the following statements is/are correct? (Level- Difficult)

1. OneWeb Constellation operates in an LEO Polar Orbit
2. They are satellites specifically designed for Earth observation from orbit, similar to spy satellites but intended for non-military uses such as environmental monitoring, meteorology, map making, etc.

Options:

- A. 1 only
- B. 2 only
- C. Both
- D. None

Answer: A

Explanation:

- Statement 1 is correct: OneWeb constellation operates in a Low Earth Orbit Polar Orbit.
- Statement 2 is not correct: OneWeb is a global communication network powered from space. It enables connectivity for governments, businesses, and communities.

Q2. With respect to Capital punishment, which of the following statements is/are correct? (Level- Moderate)

1. The constitutional validity of the death sentence itself had been upheld by the SC in K.M. Nanavati v. the State of Maharashtra (1961).
2. The Law Commission had suggested that the mode of execution should be left to the discretion of the judge, who should hear the convict on the question before passing an order.

Options:

- A. 1 only
- B. 2 only
- C. Both
- D. None

Answer: B

Explanation:

- Statement 1 is not correct: The constitutional validity of the death sentence itself had been upheld by the SC in Bachan Singh vs the State of Punjab (1982).
- Statement 2 is correct: In the 187th report in 2003, the Law Commission suggested that the mode of execution should be left to the discretion of the judge, who should hear the convict on the question before passing an order.

Q3. Consider the following statements with respect to Special Drawing Rights (SDR): (Level- Difficult)

1. After the US dollar, Renminbi has the largest weightage in determining the value of SDR.
2. SDRs can be held and used by Individuals, private entities, member countries, the IMF, and certain designated official entities called "prescribed holders".
3. The IMF reviews the SDR basket every five years, or earlier if warranted, to ensure that it reflects the relative importance of currencies in the world's trading and financial systems.

Which of the statements given above is/are correct?

- A. 1 only
- B. 3 only
- C. 1, 2, and 3
- D. None

Answer: B

Explanation:

- Statement 1 is not correct: After the US dollar, Euro has the largest weightage in determining the value of SDR.
- Statement 2 is not correct: SDRs can be held and used by member countries, the IMF, and certain designated official entities called "prescribed holders" but they cannot be held, by private entities or individuals.
- Statement 3 is correct: The IMF reviews the SDR basket every five years, or earlier if warranted, to ensure that it reflects the relative importance of currencies in the world's trading and financial systems.

Q4. Privileges of a state legislature are extended to which of the following?
(Level- Easy)

1. Governor
2. Members of the Legislative Assembly
3. Member of Legislative Council
4. Chairman of the Legislative Council
5. Advocate General of the State

Select the correct answer using the code given below.

- A. 1 and 5 only
- B. 1, 2, 3, and 4 only
- C. 2, 3, 4, and 5 only
- D. 1, 2, 3, 4 and 5

Answer: C

Explanation:

- The Privilege of State legislature is extended to Members of the Legislative Assembly, Members of the Legislative Council, the Chairman of the Legislative Council, and the Advocate General of the State. However, it is not extended to Governor.

Q5. Ogaden region has been a source of conflict between which countries?(Level-Moderate)

- A. Morocco and Algeria

- B. Nigeria and Cameroon
- C. Angola and Zambia
- D. Ethiopia and Somalia

Answer: D

Explanation:

The Ogaden region is a source of conflict between Ethiopia and Somalia.

I. UPSC Mains Practice Questions

1. [What is biotransformation technology and how can it revolutionize the waste management in India?](#) (10 marks; 150 words) (GS-3; Environment and Ecology)
2. [What are the advantages and disadvantages of a insurance based healthcare sector?](#) (10 marks; 150 words) (GS-2; Governance)