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THE HINDU Page 12

OLIVE RIDLEY TURTLES
(Syllabus: GS Paper 3 - Env & Eco)



Olive Ridley sea turtles sighted off Odisha coast

Pairs of Olive Ridley sea turtles have begun emerging on the sea waters off Gahirmatha along the Odisha coast, marking the commencement of the annual mass nesting of these endangered marine species. Gahirmatha in Kendrapara district, 150 km from the State capital Bhubaneswar, is the world's largest rookery for Olive Ridley sea turtles. PTI

Context: Pairs of Olive Ridley sea turtles have begun emerging on the sea waters off Gahirmatha along the Odisha coast, marking the commencement of the annual mass nesting of these endangered marine species.

Olive Ridley turtles

- **About**: **Smallest and most abundant** of all sea turtles found in the world. They get their name from their **olive colored carapace**.
- **Distribution and Habitat:** Found in **warm waters of the Pacific, Atlantic and Indian oceans.**
  - **India**: The **Odisha's Gahirmatha Marine Sanctuary** is known as the world's largest colony of breeding animals (rookery) of sea turtles.
    - They are found from the G**ujarat coast to the Andamans and Lakshadweep to Odisha and Bengal**.
- **Key features:** **Arribada**, unique mass nesting, where thousands of females come together on the same beach to lay eggs.
  - **100 to 140 eggs** are laid by the adult female turtle at a time.
  - The males and females olive ridley turtles grow the same in size.
- **Largest Mass Nesting Site**: Odisha Coast. Three river mouths where the turtles come together for mass nesting: Dhamra River, Rushikulya River and Devi River.
  - In India, **Gahirmatha beach** off the Bay of Bengal coast in Kendrapara district is acclaimed as the world's largest nesting ground of these turtles.
  - The **deltaic areas with sand pits** in this coast is a suitable nesting site for turtles as they like it.
  - Olive Ridley seeks a s**pecific latitude for nesting**. A beach located at a latitude of around 25 degrees is what these turtles seek.
  - The olive ridley's **sense of magnetic field** is responsible for their set behaviour. **Environmental cues** like sea currents, the sun's position, surface winds, temperature, seasons and moon are taken into account by the turtles.
  - After hatching, adult turtles usually leave their eggs and swim away, and these hatchlings use these **environmental cues** only to get to foraging grounds.
- **Feeding habits:** They are carnivorous species, and they eat mainly jellyfish, shrimp, snails, crabs, molluscs and a variety of fish and their eggs.
- **Threats**: Human Consumption, Plastic Garbage, Fishing Trawlers and Pollution.
- **Protection Status:**
  - **Wildlife Protection Act, 1972**: Scheduled 1
  - **IUCN Red List**: Vulnerable
  - **CITES**: Appendix I
  - **Convention on Migratory Species (CMS) (Bonn Convention)**: Listed in the convention.
- **Conservations efforts:**
  - **Operation Olivia**: A project carried out by the Indian Coast Guard to protect the population of Olive Ridley turtles during their nesting seasons from December to May.
  - **Turtle Excluder Devices (TEDs)**: These are 2-D net inserts that have large escape openings for turtles. These are compulsory to be used by the trawlers while shrimp fishing.
  - **Odisha Government Initiatives**: To protect the nesting and breeding habitat of Olive Ridley Turtles, the waters around Bhitarkanika were declared as Gahirmatha (Marine) Wildlife Sanctuary in September 1997.
    - **Odisha Marine Fisheries Regulation Act (OMFRA) 1982** and **Odisha Marine Fisheries Regulation Rules, 1983** have declared the coastal waters off Devi and Rushikulya rookery as a no-fishing zone during the sea turtle breeding season.
    - Indian Coast Guard has been authorized to enforce the provisions of these acts.

BUSINESS STANDARD

Page 4

GENETICALLY MODIFIED ORGANISMS

(Syllabus: GS Paper 3 - Env & Eco)

FSSAI floats draft norms for GM food

Proposes mandatory prior nod to produce, sell, import food or ingredients from GM organisms



FSSAI has come out with draft regulations for genetically modified food, proposing mandatory prior approval from the regulator to manufacture, sell and import food or ingredients produced from genetically-modified organisms.

The proposed Food Safety and Standards (Genetically Modified Foods) Regulations, 2022 will apply to Genetically Modified Organisms (GMOs) intended for food use, as per the Food Safety and Standards Authority of India (FSSAI).

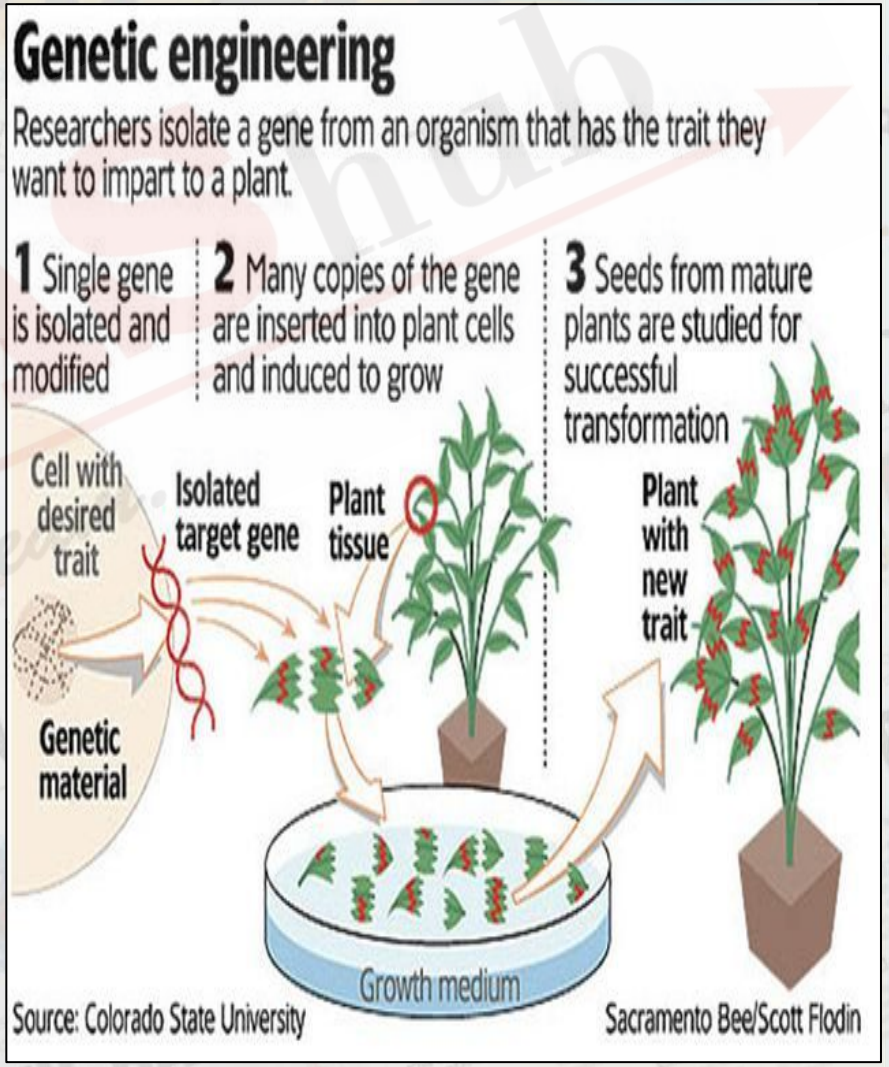
The regulations, once implemented, will also be applicable to food ingredients produced from GMOs that contain modified DNA as well as for food ingredients produced from GMOs that do not contain modified DNA but includes ingredients/additives/processing aids derived from GMOs. GMO means any living organism that possesses a novel combination of genetic material obtained through the use of modern biotechnology.

"No person shall manufacture, pack, store, sell, market or otherwise distribute or import any food or food ingredient produced from GMOs, except with the prior approval of the food authority," the draft said. All food products must be labelled with the words 'contains genetically modified organisms'. This is subject to the condition that if the product contains one per cent or more of the GM ingredient considered individually. PTI

Context: FSSAI has come out with draft regulations for genetically modified food, proposing mandatory prior approval from the regulator to manufacture, sell and import food or ingredients produced from genetically modified organisms.

Genetically modified organisms

- **About:** Genetically modified organisms are those that have their **DNA altered** in some way through **genetic engineering.'**
  - This creates co**mbinations of plant, animal, bacteria, and virus genes** that do not occur in nature or through traditional crossbreeding methods.
- **Scientific methods:** GMOs are created in the laboratory using scientific methods like Recombinant DNA technology and Reproductive cloning.
  - In **Recombinant DNA technology,** one or more genes from an organism are inserted into the DNA of another organism.
  - **Reproductive cloning** involves the extraction of a mature somatic cell from the desired organism and is inserted into the egg of the target organism that has its own nucleus removed.
- **Regulation**: In India, all GMOs including GE plants are regulated by the Ministry of Environment, Forest and Climate Change (MoEFCC) as per rules notified under the Environment (Protection) Act, 1986.
  - Currently, the **Genetic Engineering Approvals Committee,** a body under the Ministry of Environment and Forests (India) is responsible for approval of genetically engineered products in India.
  - FSSAI issued an order on February 8, 2021, setting the **permissible limit for genetically modified organisms (GMO)** in imported food crops at 1%.
- **Examples of GM Crops in India**: BT Cotton, BT Brinjal, GM mustard ((Dhara Mustard Hybrid)-11) etc.
  - Recently, the Genetic Engineering Appraisal Committee (GEAC) **granted environmental clearance for indigenously developed GM mustard seeds,** paving the way for commercial use of the first GM food crop.



INDIAN EXPRESS

Page 2

BUREAU OF INDIAN STANDARDS

(Syllabus: GS Paper 3 - Economy)

Govt unveils framework to curb fake reviews on e-commerce sites

HARIKISHAN SHARMA
NEW DELHI, NOVEMBER 21

THE UNION government Monday unveiled a framework of standards to curb fake reviews on e-commerce websites. The framework, 'Indian Standard (IS) 19000:2022', has been prepared by the Bureau of Indian Standards and will come into effect from November 25.

Consumer Affairs Secretary Rohit Kumar Singh said the standards will apply to every online platform which publishes consumer reviews.

"IS 19000:2022 is the standard that the BIS [Bureau of Indian Standards] has formulated for us, in consultation with us and the industry. Public consultations have taken place. Now, this is ready to be launched. While we unveil the main provisions of this standard today, this will be published on Friday... On 25th [November] this will be in place," Singh said, addressing a press conference.

Singh said: " Reviews play a critical role in shopping in e-commerce. They are more important in three sectors – tour and travel; restaurant and eateries; and consumer durables."

"We were getting complaints that these reviews are becoming menace... Not only for us but all over the world, countries are struggling with how to handle the fake reviews... All the countries where e-commerce is getting more and more privileged and popular, so they are all struggling with this. Some are making rules; some are making legal provisions. But I think we are the first country... which is making a standard and we will take the standards rule," Singh said.

Singh made it clear that the framework of standards will be voluntary initially.

"We do not want to bulldoze the industry. We want to take the standards route. We will first seek voluntary compliance and then, if the menace continues to grow, we will maybe make it mandatory in future depending on what happens," Singh said, explaining the rationale behind the standards.

Singh said that the new standards will be applicable to everyone who publishes reviews online and will cover solicited and unsolicited both kinds of reviews.

The reviews should be legitimate and the process of collecting, moderating and publishing of consumer reviews should be accurate, he said, adding that it should not be misleading. He said that protection of review authors' personal information should be ensured.

Singh said: "This is not a judicial order. We have developed a framework and we want all e-commerce entities to adopt this framework as soon as possible and adhere to the standards."

Context: The Union government unveiled a framework of standards to curb fake reviews on e-commerce websites.

Bureau of Indian Standards

- **About**: A **statutory body** established under the Bureau of Indian Standards Act, 2016.
  - Under the Act, BIS has been identified as the '**National Standards Body of India'.**
- **Functions**: BIS prescribes the standards for covering goods and systems under the standardization regime.
- **Nodal Ministry:** Regulated under the **Ministry of Consumer Affairs, Food & Public Distribution.**
- **Features of BIS Act 2016:**
  - The central government has the **power to appoint any agency or authority (apart from the BIS)** to verify the conformity of product & services and issue the conformity certificates.
  - Allows the union government to make it **compulsory** for certain notified goods, processes, articles, etc. **to carry the standard mark** in the public interest, safety of the environment, national security or to prevent unfair trade practices.
  - There is a provision in the Act for the r**ecall or repair for products** that bear the Standard Mark but do not conform to the required Indian standard.
  - The Act has **identified new areas for standardisation** which includes Medical devices, Alternate fuels, Smart cities, E-mobility, New and renewable energy and Digital technologies (Artificial Intelligence, Industry 4.0, Blockchain, etc.)
  - The BIS (Hallmarking) Regulations, 2018 makes the h**allmarking of precious metals** jewellery and artefacts such as gold and silver **mandatory**.
  - The **penalty** for improper use of the Indian standard mark will be a fine of **up to Rs. 5 lakh**.
  - The Act also prescribes penalties for the following points:
    - The **improper use of the standard mark** by testing and marking centres
    - Manufacturing or selling goods & articles that do not carry a standard mark and have been mandated to do so, etc.

LIVEMINT

Page 4

INDIA-UK PACT

(Syllabus: GS Paper 2 - International Relations)

India, EU ink pact on climate, quantum tech

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NEW DELHI



The agreement will help in climate mitigation plans. GETTY IMAGES

India and the European Union (EU) on Monday signed an agreement on cooperation in areas such as climate modelling and quantum technologies, building on the Trade and Technology Council launched by the two sides earlier this year.

The "Intent of Cooperation on High-Performance Computing (HPC), Weather Extremes and Climate Modelling and Quantum Technologies" was signed by India's ministry of electronics and IT (MeitY) and the European Commission's Directorate-General for Communications Networks, Content and Technology (DG CONNECT) during a virtual ceremony.

The agreement builds on commitments by both sides for deepening technological cooperation on quantum and high-performance computing during the India-EU leaders meeting on 8 May.

"Moreover, the signing of the agreement assumes significance in the context of the decision to set up EU-India Trade and Technology Council (TTC)" on 25 April, an EU statement said.

The agreement signed on Monday aims to facilitate collaboration on high-performance computing applications using Indian and European supercomputers in areas such as bio-molecular medicines, covid-19 therapeutics, mitigating climate change, predicting natural disasters and quantum computing, the statement said.

Supercomputing is tackling some of the world's biggest challenges, and demand for it is increasing

The agreement was signed by MeitY secretary Alkesh Kumar Sharma and Roberto Viola, director general of the Directorate General of Communication, Networks, Content and Technology.

Sharma said high-performance computing is tackling some of the world's biggest challenges, and the demand for such systems is increasing rapidly in various domains. Under this partnership, India and the EU will leverage expertise from both sides to optimise high-performance computing towards developing advanced technology solutions in multiple fields.

Viola said combining the experience and expertise of India and the EU and building on long-standing cooperation and trust can "help one another overcome the greatest challenges of our age, covid-19 and climate change".

The agreement will also allow the two sides to explore the frontiers of quantum technologies jointly, he said.

The India-EU TTC is a strategic mechanism that gives New Delhi access to advanced technologies and allows the two sides to set standards in crucial areas such as 5G and artificial intelligence.

This is the first such trade and technology council set up by India with any of its partners. For the EU, it is only the second such body, following the first one set up with the US.

The proposal for setting up the council came from the EU side, and India agreed to it as it will allow the two sides to work on issues such as 5G, artificial intelligence, quantum computing, climate modelling and health-related technology.

Context: India and the European Union (EU) signed an agreement on cooperation in areas such as climate modelling and quantum technologies, building on the Trade and Technology Council launched by the two sides earlier this year.

India-UK Pact

- **About**: The "**Intent of Cooperation on High-Performance Computing (HPC), Weather Extremes and Climate Modelling and Quantum Technologies**" was signed by India's ministry of electronics and IT (MeitY) and the European Commission's Directorate-General for Communications Networks, Content and Technology (DG CONNECT).
- **Objectives**: The agreement signed aims to **facilitate collaboration on high-performance computing applications** using Indian and European supercomputers in areas such as bio-molecular medicines, covid-19 therapeutics, mitigating climate change, predicting natural disasters and quantum computing..
- **Commitments**: The agreement **builds on commitments by both sides for deepening technological cooperation** on quantum and high-performance computing during the India-EU leaders meeting on 8 May.
  - Under this partnership, India and the EU will **leverage expertise from both sides** to optimise high-performance computing towards developing advanced technology solutions in multiple fields.
  - The agreement will also allow the two sides to explore the frontiers of quantum technologies jointly.
- **India-EU TTC**: The signing of the agreement assumes significance in the context of the decision to set up EU-India **Trade and Technology Council (TTC).**
  - The India-EU TTC is a **strategic mechanism** that gives New Delhi access to advanced technologies and allows the two sides to set standards in crucial areas such as 5G and artificial intelligence.
  - This is the **first such trade and technology council** set up by India with any of its partners. For the EU, it is only the second such body, following the first one set up with the US.
  - The proposal for setting up the council came from the EU side, and India agreed to it as it will allow the two sides to work on issues such as **5G, artificial intelligence, quantum computing, climate modelling and health-related technology.**

ECONOMIC TIMES

Page 2

NATIONAL AWARDS TO TEACHERS

(Syllabus: GS Paper 1 - Sports & Awards)

Govt Prunes Awards Across Ministries

Awards axed across education, culture, I&B and petroleum ministries in the latest round

Anubhuti.Vishnoi@timesgroup.com

New Delhi: The Centre plans to replace the National Awards for Teachers, usually conferred on 45-47 awardees, with a single new national award of 'high stature' with 2-3 categories. It will also subsume all teaching related awards under it offered through autonomous bodies such as Kendriya Vidyalaya Sangathan, All India Council for Technical Education, CBSE, National Institute of Open Schooling and Navodaya Vidyalaya Samiti.

The National Teacher's Day award, instituted in 1958, is the highest recognition conferred on the best school teachers by the government of India on September 5, Teachers' Day, every year. It is conferred by the President of India and administered by the Ministry of Education. It has also been decided to discontinue awards by the CBSE to class 10 and class 12 toppers, the National Bal Shree Honour by the National Bal Bhawan and the Pt Deen Dayal Upadhyay Mukta Vidya awards, as per decisions taken at an inter-ministerial review held on September 22 under the chairmanship of home secretary Ajay Bhalla, who emphasised on the PM's vision regarding the "transformation of the awards ecosystem" at the meet.

"A new national-level award with high stature may be instituted for teachers, which could have two to three categories. In this national-level award, all other awards given to teachers by various ministries/departments may be merged," according to the minutes of the meetings accessed by **ET**.

The I&B ministry has been asked to rationalise the number of awardees under the national films awards, International Children's Film Festival of India awards. It has been asked to discontinue Doordarshan national awards along with the National Community radio awards and the FTII's students' award and the Akashvani annual awards, **ET** has learnt. The ministry has also been advised to discontinue the cash prize under International Film Festival of India and the Mumbai International Film Festival award. The Dada Saheb Phalke award will, however, be continued.

While the Sangeet Natak Akademi confers about 40 awards every year to promising artists and the Sahitya Akademi confers some 24 awards annually, the review has decided that there should be a single Sangeet Natak Akademi award and one Sahitya Akademi award of higher stature, with various categories under it. The culture ministry has been asked to review the awards to consider "opening up their awards to the general public" from the nomination level.

'Transformation of awards ecosystem' in line with PM's vision to bring Jan Bhagidari, objective selection

The Kriti Samman Yojana — for publications in Hindi language and Shreshth Patrikaon par puruskar on magazines — 'should be discontinued along with the teachers awards conferred by the Centre for Cultural Resources and Training'.

Petroleum and natural gas ministry has been asked to axe 15 awards given by PSUs including two awards by Oil India, five by ONGC Videsh and three by the Centre for High Technology. Awards given by the Department of Agricultural Research and Education and Department of Agriculture and Farmers Welfare have also seen a trim. It has been advised that three new national-level awards of high stature be instituted for farmers, research and technology and one national-level award — the Krishak Ratna — for farmers.

A concept note on awards shared with all ministries then said that there are multiple awards across ministries and sometimes "questions are raised on the selection process" due to lack of public awareness about the procedure followed.

Biggest Impact on Teachers and Students

National Awards for Teachers likely to be replaced with a single new award with just 2-3 categories; it will subsume all teaching awards

Awards given by CBSE to class 10 and class 12 toppers, National Bal Shree Honour and the Pt Deen Dayal Upadhyay Mukta Vidya awards to be discontinued



ILLUSTRATION: ZAHID

I&B Min told to rationalise national films awards, International Children's Film Festival of India awards

Asked to discontinue DD national awards, National Community radio awards, FTII's students' award and Akashvani awards

Advised to discontinue cash prize under Iffi and Mumbai International Film Festival award

Culture Min asked to review awards given by Sangeet Natak Akademi and Sahitya Akademi

Kriti Samman Yojana – for publications in Hindi language – 'should be discontinued along with the teachers awards conferred by the Centre for Cultural Resources and Training'

Context: The Centre plans to replace the National Awards for Teachers, usually conferred on 45-47 awardees, with a single new national award of 'high stature' with 2-3 categories.

National Awards to Teachers

- **About:** The National Award to Teachers are **given away by the President of India** on **5th September (Teacher's Day)** every year to give public recognition to meritorious teachers working in primary, middle and secondary schools.
  - The **number of awards has been rationalized to 47.** This has been necessary to restore the prestige of the awards (under the earlier scheme the number of awardees had crossed 300).
  - The award carries a Silver Medal, Certificate and Rs.50,000/- as award money.
- **Origin**: The award was **instituted in 1958**.
- **Objective**: To **celebrate and honour the unique contribution** of some of the finest teachers in the country who through their commitment and hard work have not only improved the quality of school education but also enriched the lives of their students.
- **Associated Ministry**: Department of School Education and Literacy, **Ministry of Education,** annually on Teachers Day, organizes the national level function to confer the National Awards to Teachers to the best teachers in the country.
  - India annually celebrates the birth anniversary, September 5, of D**r. Sarvepalli Radhakrishnan** as National Teachers' Day as a tribute to his contributions and achievements.

National Awards to Teachers 2022 Winners

- **About**: On the occasion of Teachers' Day 2022, President of India conferred the National Awards to Teachers 2022 to 45 teachers at **Vigyan Bhawan** in New Delhi.
- **Highlights of the award 2022**: Among the 45 teachers who have been selected for the National Awards to Teachers, two teachers, **one from Andaman and Nicobar Islands and another one from Uttarakhand** will be awarded under the Special Category for differently-abled teachers.

TIMES OF INDIA

Page 2

DEADLIEST BACTERIA

(Syllabus: GS Paper 3 - Sci & Tech)

5 bacteria types claimed 6.8L lives in India in 2019: Lancet

Study Says E Coli Deadliest, Reveals Challenge Due To Pathogens

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New Delhi: Five bacteria—E-.coli, S.pneumoniae, K.pneumoniae, S.aureus and A.baumanii—have been found to be the deadliest pathogens in India. According to a report published in The Lancet, infections caused by the five bacteria together claimed more than 6.8 lakh lives in India in 2019.

While E Coli, which is associated with diarrhoea, urinary tract infections and pneumonia among others, claimed maximum 1.6 lakh lives in the country, S.pneumoniae, K.pneumoniae, S.aureus and A.baumannii claimed 1.4 lakh, 1.3 lakh, 1.2 lakh and 1.1 lakh deaths respectively.

Times View: The facts thrown up by the study are alarming. Among other things, it once again shows how the reckless use of antibiotics can be counterproductive and dangerous. We can ignore the findings at our own peril.

The Lancet report is based on deaths attributable to bacterial infections among 33 species, including the five mentioned above. In total, the report shows, 13.7 people died due to bacterial infections in India in 2019. The other common bacteria responsible for infection-related deaths included Salmonella Typhi, non-typhoidal Salmonella and Pseudomonas aeruginosa among others.

These bacteria were associated with infection-related deaths reported from other countries as well. The Lancet report shows an estimated 1.3 crore people died due to infections globally. Of these deaths, 77 lakh deaths were associated with the 33 bacterial pathogens included in the study, with five bacteria alone connected to more than half of all deaths. More than 75% of the 77 lakh bacterial deaths occurred because of three syndromes: lower respiratory infections (LRI), bloodstream infections (BSI), and peritoneal and intra-abdominal infections (IAA), the study showed.

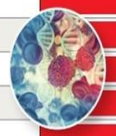
"These new data for the first time reveal the full extent of the global public health challenge posed by bacterial infections," Dr Christopher Murray, study co-author and director of the Institute for Health Metrics and Evaluation (IHME) at the University of Washington's School of Medicine, said. He added that it is of utmost importance to put these results on the radar of global health initiatives so that a deeper dive into these deadly pathogens can be conducted and proper investments are made to slash the number of deaths and infections.

The pathogens associated with the most deaths differed by age. With the 940,000 deaths, S. aureus was associated with the most deaths in adults aged over 15 years globally. The most deaths in children aged 5 to 14 years were associated with Salmonella enterica serovar Typhi, with 49,000 deaths, the Lancet report shows. It adds that in children older than newborns but under 5 years of age, S. pneumoniae was the deadliest pathogen, accounting for 225,000 deaths. The pathogen associated with the most neonatal deaths was K. pneumoniae, with 124,000 deaths, the study adds.

Dr Sumit Ray, who heads critical care at St Stephen's hospital, said nearly 20-25% of infection-related deaths involve pathogens that are resistant to most of the available drugs. Recently, Apollo hospitals introduced an antimicrobial stewardship programme to improve antimicrobial use and patient outcomes. Dr Sangita Reddy, joint managing director, Apollo, said antibiotic resistance is one of the major health threats facing the world currently. "We need to tackle it effectively," she said.

TOP FIVE DEADLY BACTERIA IN INDIA

Pathogen	Death count in 2019	Death rate per 1,00,000 population, 2019
E Coli	1.6 lakh	16.1
S-Pneumoniae	1.4 lakh	14.4
K-Pneumoniae	1.3 lakh	13.2
S-Aureus	1.2 lakh	12.8
A-Baumannii	1.1 lakh	11



Context: Five bacteria have been found to be the **deadliest pathogens in India, a**ccording to a report published in The Lancet.

Key Points

- **Five deadliest bacteria are:** E. coli, S. pneumoniae, K. pneumoniae, S. aureus and A. baumanii.
  - While **E Coli, which is associated with diarrhoea**, urinary tract infections and pneumonia among others, claimed maximum 1. 6 lakh lives in the country, **S. pneumoniae, K. pneumoniae, S. aureus and A. baumannii** claimed 1. 4 lakh, 1. 3 lakh, 1. 2 lakh and 1. 1 lakh deaths respectively.
  - The other common bacteria responsible for infection-related deaths included Salmonella Typhi, non-typhoidal Salmonella and Pseudomonas aeruginosa among others.
- **Antimicrobial stewardship programme**: Apollo hospitals introduced an **antimicrobial stewardship programme** to improve antimicrobial use and patient outcomes.

About the 5 deadliest bacteria

- **E.coli or Escherichia coli**: A rod-shaped bacteria that generally **lives in the intestines of humans and most other mammals**. Usually, it is harmless and quite beneficial for the health of the organism. But some variations of these bacteria are quite harmful and can cause severe food poisoning.
- **Streptococcus pneumoniae or pneumococcus**: A Gram-positive, spherical bacteria, alpha-hemolytic (under aerobic conditions) or beta-hemolytic (under anaerobic conditions), aerotolerant anaerobic member of the genus Streptococcus.[
  - It causes Pneumonia, an acute respiratory infection of the **lungs**.
    - **Gram positive bacteria** have a thick peptidoglycan layer and no outer lipid membrane whilst **Gram negative bacteria** have a thin peptidoglycan layer and have an outer lipid membrane.
- **Klebsiella Pneumoniae**: A gram-negative, nonmotile, lactose-fermenting, encapsulated, facultatively anaerobic, rod-shaped bacterium.
  - In addition to **pneumonia**, Klebsiella can also cause infections in the **urinary tract, lower biliary tract, and recent wounds from surgical procedures.**
- **Staphylococcus aureus:** A Gram-positive spherically shaped bacterium, a member of the Bacillota, and is a usual member of the microbiota of the body, frequently found in the upper respiratory tract and on the skin.
  - Although S. aureus usually acts as a commensal of the human microbiota, it can also become an **opportunistic pathogen**, being a common cause of skin infections including abscesses, respiratory infections such as sinusitis, and food poisoning.
- **Acinetobacter baumannii:** A typically short, almost round, rod-shaped (coccobacillus) Gram-negative bacterium.
  - It can **cause infections in the blood, urinary tract, and lungs (pneumonia),** or in wounds in other parts of the body. It can also "colonize" or live in a patient without causing infections or symptoms, especially in respiratory secretions (sputum) or open wounds.

PIB

Nov 22

LOOK EAST POLICY

(Syllabus: GS Paper 2 - International relations)

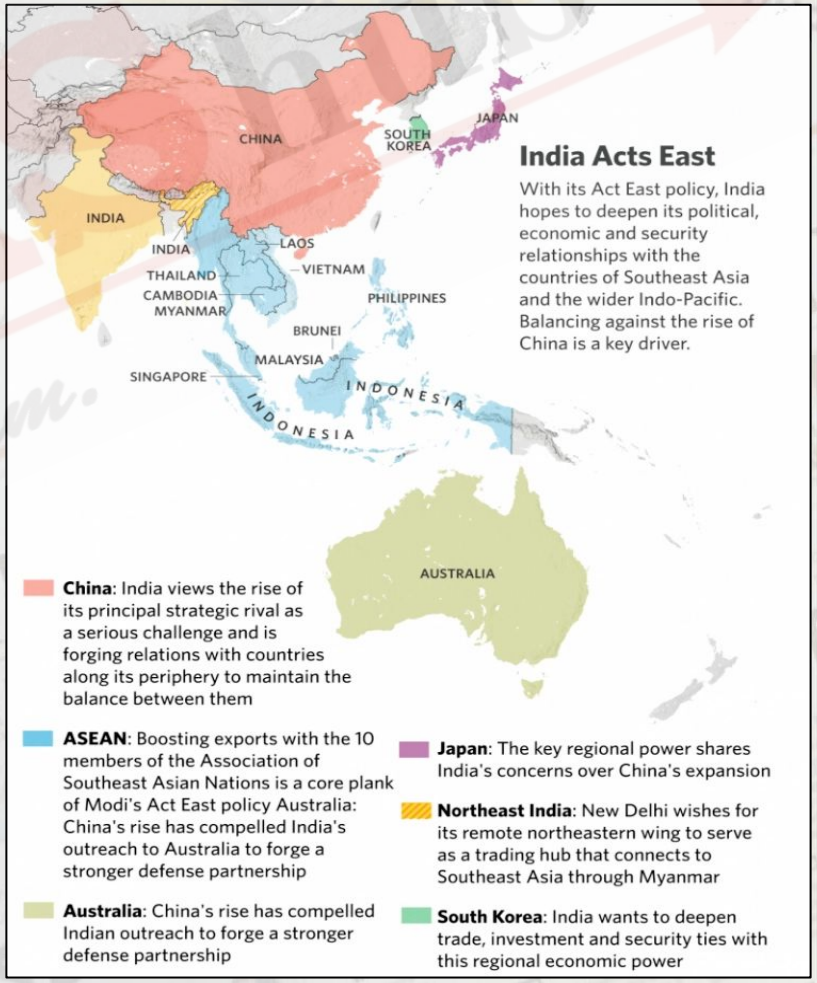
Government-accelerated development initiatives in North East transform 'Look East policy' into 'Act East Policy': Raksha Mantri Shri Rajnath Singh

Context: The Defence Minister stated that Government-accelerated Development Initiatives in North East have transformed '**Look East policy' into 'Act East Policy'**, leading to all round developments in the Northeast region, enabling all the states to improve trade with Southeast Asian Nations.

- He was addressing the two-day conclave on the theme '**Celebrating Contribution of India's North East Region (NER) in Nation Building**', organized by Indian Army and State Governments of Assam, Meghalaya, Arunachal Pradesh, Tripura, Mizoram, Manipur & Nagaland as well as North Eastern Zone Cultural Council (NEZCC) at Guwahati

Look East policy

- **About**: Launched in 1991 to develop **political, economic and security co-operation** with countries in Southeast Asia.
- **Act East Policy of India**: Act East Policy was launched in 2014 which succeeded Look East Policy.
  - The main objective was to have **greater engagement in all spheres** with countries in Southeast Asia as well as with far Eastern countries like Japan, South Korea, and countries in the Pacific region like Australia.
  - **Security** is an important dimension of India's Act East Policy.
- **Difference between the Look East Policy and Act East Policy**
  - **Look East**: Focused on the **Association of Southeast Asian Nations (ASEAN) countries + Economic Integration.**
  - **Act East:** Focused on **ASEAN countries + Economic Integration + East Asian countries + Security cooperation.**
- **4C's of Act East Policy:** Culture, Commerce, Connectivity and Capacity building.



PIB

Nov 22

NATIONAL CREDIT FRAMEWORK

(Syllabus: GS Paper 2 - Education)

Shri Dharmendra Pradhan participates in consultation on draft National Credit Framework (NCrF) at IIT Delhi

Context: Union Minister for Education and Skill Development and Entrepreneurship participated in the stakeholders' c**onsultation on draft National Credit Framework (NCrF)** at IIT Delhi.

National Credit Framework

- **About:** The new framework is a part of the **National Education Policy.**
  - The framework has been formulated under the **University Grants Commission (Establishment and Operation of Academic Bank of Credits in Higher Education) Regulations**, notified in July 2021.
- **Key features:**
  - **Academic year**: An academic year will be **defined by the number of hours** a student puts in.
  - **Credits: It** will be provided to them accordingly at the **end of each academic year.**
  - **Credit System**: The report of the high-level committee on the NCrF, put out in public domain, proposes credit levels from class 5 onward itself - which will be credit level 1, going up to **credit level 7 and 8** with post-graduation and a doctorate, respectively.
    - Credit levels will increase by **0.5 for every year of learning.**
  - **Earning Credit:** The total '**Notional Learning hours in a year'** for assignment of Credits will be 1200 hours.
    - A **minimum of 40 credits may be earned for 1200 hours of learning** every year with 20 credits per semester of six months.
    - Each Credit will come with 30 hours of learning- 30 hours per credit.
  - **Easy Entry and Exit:** The **credit transfer mechanism** will also enable a student/ learner to enter and exit the educational ecosystem, both general and vocational, at any point of time. In such cases due weightage is given to work experience gained or any other training undertaken by the learner.
  - **Due Attention to Co-Curricular Activities:** The new credit framework **will not have any hard separation between Curricular and Co-Curricular,** or various discipline and will count in performance on -classroom teaching/learning/laboratory work/class projects; Sports and games, etc.
  - **Aadhaar-enabled student registration:** An Aadhaar-enabled student registration will take place. After student registration, an Academic Bank of Credit (ABC) account will be opened. The d**eposit of degree and credits** will take place in those accounts. There will be a knowledge locker along the lines of DigiLocker.
  - **Academic Bank of Credit:** The recently introduced Academic Bank of Credit (ABC) for higher education will be expanded to **allow for end-to-end management of credits** earned from school education onwards and will also include vocational education and trainings.

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PCPIR POLICY

(Syllabus: GS Paper 3 - Economy & Industry)



POLLUTION

Life of Plastic: India's petrochemical industry is a part of its 'polymer problem', says CSE; yet it is encouraged

India plans to position itself as a major exporter of basic petrochemicals, CSE's new report hints

NEXT NEWS >

By DTE Staff
Published: Monday 21 November 2022

Petroleum, Chemicals and Petrochemical Investment Region (PCPIR) Policy

- **About:** Petroleum, Chemicals & Petrochemical Investment Regions (PCPIRs) policy was launched in 2007 launched by Department of Chemicals and Petrochemicals - ministry of chemicals and fertilisers.
- **Objectives**: to **promote investment in Petroleum and Petrochemical sector.**
- **PCPIR region**: A PCPIR is **divided into processing area and non-processing area.** The processing area must cover 40% of the total designated area (i.e. 100 sq. km) and should have manufacturing facilities, logistics and required infrastructure.
  - The non- processing area can be used for residential, commercial and other social and institutional infrastructure.
  - PCPIR may be a region **declared by state governments** under legislation or notification, however, land acquisition is not mandatory for the entire area. Further, government can also declare a PCPIR around existing industries & estates.
- **Key features**: Every PCPIR will have a refinery or petrochemical feedstock company as an anchor tenant.
  - A PCPIR may include one or more **Special Economic Zones,** Industrial Parks, Free Trade & Warehousing Zones, Export Oriented Units, or Growth Centres.
  - If any of these areas come under PCPIR, the benefits they were previously received will continue to receive.

Context: India's **petrochemical industry** is adding to the burgeoning problem of **plastic pollution** in the country.

- But instead of dissuading, the **Centre is encouraging** it, a new report by Delhi-based think-tank, Centre for Science and Environment (CSE) has said.

Key Points

- The **production** of polymers (plastic) by the petrochemicals industry is **on the rise,** as is consumption, according to The Plastic Life-Cycle.
- India's cumulative production capacity for petrochemicals is 29.10 million metric tonne per annum (MMTPA).
- The 29.10 MMTPA petrochemicals p**roduced by India are of five types**: synthetic fibres (polyester, nylon), polymers (plastics), elastomers (synthetic rubber), synthetic detergent intermediates and performance plastics.
- Both, the **production and consumption of polymers in India has risen** drastically in the last few years.
- **Plastics accounted for more than 67 per cent** of the total petrochemicals produced in India in 2020-21.
- The Government of India was **encouraging the production of plastics** from petrochemicals in a number of ways.
- It had **promoted a 'cluster approach'** for developing plastic parks across the country — a total of 10 such parks have been proposed.
- The government had also revised the **Petroleum, Chemicals and Petrochemical Investment Region (PCPIR)** in 2020 for the period of 2020-35.
- The final product in the form of pellets is transported to the plastic industry where they are melted, moulded and remoulded into a variety of plastic objects for end use.

Petrochemical industry in India

- **About**: Petrochemicals are those chemicals which are **derived from crude petroleum during refining.**
  - These chemicals are **used for manufacturing synthetic fiber**, synthetic rubber, plastic, insecticide, drugs and pharmaceuticals.
  - **Mumbai is the hub of Petrochemical industry**. Cracker units are also located at Auraiya (UP), Jamnagar, Gandhar, Hazira (Gujarat), Ratnagiri (Maharashtra), Haldia (West Bengal) and Visakhapatnam (Andhra Pradesh)
  - **The petrochemical industry is divisible into four sub groups:**
    - **Polymer**: It provides the basic raw material for the plastic industry. These are obtained in the process of refining crude oil in refineries. Polymer (polyethylene) if a widely used thermoplastic.
    - **Synthetic fibers**: These are widely used for manufacturing a large variety of fabrics because of their special quality, dye-ability, workability, wash-ability, and resistance to wrinkles and shrinkage.
    - **Elastomers:** Elastomers are polymers that are having a viscosity as well as elasticity and therefore are known as visco-elasticity.
    - **Surfactant intermediate:** Surfactant, also called surface-active agent, a substance such as a detergent that, when added to a liquid, reduces its surface tension, thereby increasing its spreading and wetting properties.

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COMMUNITY FOREST RESOURCE RIGHTS

(Syllabus: GS Paper 2 - Issues Related to SCs & STs)



FORESTS

Chhattisgarh: Adivasis say FRA violated, as forest department marks trees for felling in 3 districts

Villagers now have the legal right to protect, regenerate, conserve and manage these lands

By Zumbish

Published: Thursday 17 November 2022



Context: It's been four years since the Chhattisgarh government sped up the process of granting **Community Forest Resource Rights (CFRR)** to villages.

- But the forest department continues to interfere in Adivasi communities' forest rights, with the latest instance being the marking of plots to **fell trees in the CFRR villages of three districts** - Dhamtari, Kondagaon and Bastar.

Community Forest Resource Rights (CFRR)

- **About**: CFRR under the **Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006** (commonly referred to as the Forest Rights Act) provides for recognition of the right to "protect, regenerate or conserve or manage" the community forest resource.
  - These rights **allow the community to formulate rules for forest** use by itself and others and thereby discharge its responsibilities under FRA.
- **Significance:** CFR rights, along with Community Rights (CRs) under FRA, which include nistar rights and rights over non-timber forest products, **ensure sustainable livelihoods of the community**.
- **Nodal Body:** Once CFRR is recognised for a community, the ownership of the forest passes into the hands of the **Gram Sabha instead of the forest department.**
  - These rights give authority to the Gram Sabha **adopt local traditional practices** of forest conservation and management within the community forest resource boundary.
- **Recognition in the states:** **Chhattisgarh** is only the **second state** to have recognised CFR rights inside a national park i.e., Kanger Ghati National Park.
  - In 2016, the **Odisha government was the first to recognise Community Forest Resources (CFRs)** inside the Simlipal National Park.

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