

WEEK-5 DECEMBER 2020

MAINS

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 Delhi's position and earthquake zones of India
- **GS-II** Educating Tribals of India
 - One year on, no withdrawal of Pathalgadi cases
- GS-III UK 'finally' struck a post-Brexit trade deal with EU
 - First Centre of Excellence for Skill development
- **GS-IV** What are the healthcare ethics in a global crisis?

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- GOVERNANCE Right of the people to the Sentinel island is nonnegotiable: AnSI
 - ECONOMY Agriculture Cost of Production.
 - Government exploring setting up bad bank, all other options.
 - The India State-Level Disease Burden Initiative
- ENVIRONMENT
 Indoor pollution is as deadly as its outdoor counterpart
 - Tso Kar Wetland Complex
 - World's ugliest Orchid
- SCIENCE L&T Construction 3D prints & TECHNOLOGY India's first building with reinforcement
 - New strain of COVID-19 'out of control
 - Shigella infection



- Disclaimer -

The current affairs articles are segregated from prelims and mains perspective, such separation is maintained in terms of structure of articles. Mains articles have more focus on analysis and prelims articles have more focus on facts.

However, this doesn't mean that Mains articles don't cover facts and PT articles can't have analysis. You are suggested to read all of them for all stages of examination.

CURRENT AFFAIRS ANALYST WEEK- 5 (DECEMBER, 2020)

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SECTION: A (MAINS)

CURRENT AFFAIRS

DELHI'S POSITION AND EARTHQUAKE ZONES OF INDIA

CONTEXT

Whenever earthquake hits Delhi, there starts discussion on the tectonic faults that the city lies on. In this regard, it is essential to understand the major earthquake zone where does the national capital stand.

• BACKGROUND

- The terrain of Delhi is flat in general except for the north-northeast (NNE)-south-southwest (SSW) trending ridge.
- The region is considered as an extension of the Aravalli hill, which is buried under the Yamuna alluvium in the northern parts of Delhi.
- River Yamuna enters the city and forms a trijunction with the Lahore-Delhi ridge, and the Delhi-Haridwar Ridge.
- This region is seismically active and shows sporadic activity aligned in NNE-SSW direction, nearly perpendicular to the Himalayan arc.
- Apart from local tectonic faults, the proximity of the Himalayan region makes Delhi susceptible to the earthquakes from Himalayan seismic sources.
- Thus, the region around Delhi is inhomogeneous as far as its seismotectonic status is concerned.

Know Your Basics

What are tectonic plates?

The Earth's lithosphere, which includes the crust and upper mantle, is made up of a series of pieces, or tectonic plates, that move slowly over time. There are three main types of plate boundaries:

- Convergent boundaries: where two plates are colliding
 - Convergent plate boundaries are locations where lithospheric plates are moving towards one another.
 - One plate eventually slides beneath the other, a process known as subduction.
 - Subduction zones occur when one or both of the tectonic plates are composed of oceanic crust. The denser plate is subducted underneath the less dense plate. The plate being forced under is eventually melted and destroyed.

► Where oceanic crust meets ocean crust

Island arcs and oceanic trenches occur when both of the plates are made of oceanic crust. Zones of active seafloor spreading can also occur behind the island arc, known as backarc basins. These are often associated with submarine volcanoes.

 Where oceanic crust meets continental crust

The denser oceanic plate is subducted, often forming a mountain range on the continent. The Andes is an example of this type of collision.

 Where continental crust meets continental crust

Both continental crusts are too light to subduct so a continent-continent collision occurs, creating especially large mountain ranges. The most spectacular example of this is the Himalayas.

• Divergent boundaries: where two plates are moving apart

The space created can also fill with new crustal material sourced from molten magma that forms below. Divergent boundaries can form within continents but will eventually open up and become ocean basins.

- On land: Divergent boundaries within continents initially produce rifts, which produce rift valleys.
- ➤ Under the sea: The most active divergent plate boundaries are between oceanic plates and are often called mid-oceanic ridges.
- Transform boundaries: where plates slide passed each other
 - The relative motion of the plates is horizontal. They can occur underwater or on land, and crust is neither destroyed nor created.
 - Because of friction, the plates cannot simply glide past each other. Rather, stress builds up in both plates and when it exceeds the threshold of the rocks, the energy is released – causing earthquakes.



• ANALYSIS

Where does India lie?

 India lies at the north-western end of the Indo-Australian Plate, which encompasses India, Australia, a major portion of the Indian Ocean and other smaller countries.

- **Indo-Australian Plate** is colliding against the huge **Eurasian Plate** and going under the Eurasian Plate.
- This process of one tectonic plate getting under another is called subduction.

Indo-Australian Plate

- The Indo-Australian Plate is one of Earth's 7 major plate tectonic boundaries. It's the second smallest being slightly larger than the South American Plate.
- At about 58,900,000 km², the Indo-Australia plate is the sixth largest plate tectonic boundary.
- The Indo-Australian Plate includes the majority of the Indian Ocean. It borders:
 - ▶ the Eurasian Plate in the north
 - ► the Antarctic Plate in the south
 - the Pacific Plate in the east

What causes Earthquake?

- The primary cause for an earthquake is the movement of rocks beneath the earth's surface.
- The movement is usually caused by the continuous movement of plates that make up Earth's crust.
- This movement exerts stress on rocks, causing the latter to respond by breaking along existing fractures called fault lines.
- The sudden release of energy during such breakup causes the tremors.

Seismic Zones in India

- While scientists cannot predict the time, place, or the exact scale of these quakes, consistent seismic activity around the Delhi-NCR region could be a precursor to a major earthquake.
- There are a total of four seismic zones in India.
 - Zone V: Entire northeastern India, parts of Jammu and Kashmir and Himachal Pradesh, Uttaranchal, Rann of Kutch in Gujarat, parts of North Bihar and Andaman & Nicobar Islands.
 - Zone-IV: The remaining parts of Jammu and Kashmir and Himachal Pradesh. Delhi-NCR region, Sikkim, northern parts of Uttar Pradesh,

Bihar and West Bengal, parts of Gujarat and small portions of Maharashtra near the west coast and Rajasthan.

- Zone III: Goa, Kerala, Lakshadweep, remaining parts of Uttar Pradesh, Gujarat and West Bengal, parts of Punjab, Rajasthan, Madhya Pradesh, Bihar, Jharkhand, Chhattisgarh, Maharashtra, Orissa, Andhra Pradesh, Tamil Nadu and Karnataka.
- **Zone II:** Parts that are not under the above zones.

Major Indian cities and their earthquake zones

- Zone V cities- Guwahati and Srinagar
- **Zone IV cities** Delhi, Patna, Dehradun, Jamnagar, Meerut, Jammu, Amritsar and Jalandhar
- Zone III cities Ahmedabad, Vadodara, Surat, Rajkot, Bhavnagar, Pune, Bhiwandi, Nashik, Greater Mumbai, Thane, Bhubaneswar, Cuttack, Chennai, Asansol, Coimbatore, Agra, Varanasi, Bareilly, Lucknow, Kanpur, Kolkata, Indore, Jabalpur, Vijaywada, Dhanbad, Mangalore, Kochi, Kozhikode, Trivandrum.

What is Delhi's geographic location?

- Delhi is vulnerable to earthquakes in particular mainly because of its location. Delhi is situated on top of few active seismic fault lines. Moreover, its proximity to other active seismic fault lines further worsens the situation.
- Delhi falls under the fourth-highest seismic zone, which makes it vulnerable to earthquakes.
- Furthermore, it lies in the Himalayan foothills.
- Since the formation of the Himalayas, a large part of the crust under the mountain ranges has remained deformed.
- These rocks remain stressed and folded due to the continuous movement of the Indian plates under the mountain.
- And when the piled-up stress gets released, it produces minor frequency earthquakes in and around the National Capital Region.

• CONCLUSION

The entire **Himalayan seismic zone** is vulnerable to strong earthquakes. The Indian tectonic plate is continuously driving into the Eurasian plates around this region at a speed of 44 mm/year. Due to this motion of tectonic plates, stress builds up, and the earthquakes are triggered to release tension. Not only Delhi, but many parts of north, east and northeastern India are at constant risk of strong earthquakes due to this phenomenon.



EDUCATING TRIBALS OF INDIA

CONTEXT

- Tribal communities in India have been historically deprived of access to resources and opportunities, including the 'opportunity to get educated'.
- For such historically deprived communities, providing 'access to education' is simply not enough. However, it is important to analyse the status of tribal education with literacy rate, gross enrolment ratio and dropout rates in India.

• BACKGROUND

- Since India's independence, the Union and state governments, have initiated several schemes and programmes to educate the country's tribal population.
 - ➤ These include the establishment of Ashram Schools, Ekalavya Model Residential Schools, Kasturba Gandhi Balika Vidyalaya, pre-matric scholarships and vocational training centres, etc.
- Policy analyst and educationists have been meaning to recognize tribal culture, language, cognitive strength, curriculum and inherent learning ability of the tribal children.
- They believe this could revamp the tribal education system in the country.
- There is, however, a long way to ensure holistic education in the tribal hinterlands.

• ANALYSIS

Who are 'Tribals'?

- In India, the indigenous communities are commonly referred to as **tribal** (*adivasi*) communities.
- **Recognition:** They are recognised as **Scheduled Tribes** under the Constitution of India.
 - Although the Constitution does not define Scheduled Tribes as such, it designates these communities as those which are scheduled in accordance with Article 342 of the Constitution.
- Who designates: According to Article 342 of the Constitution, the Scheduled Tribes are the tribes or tribal communities or part of or groups within these tribes and tribal communities which have been declared as such by the **President** through a public notification.
- **Criteria**: The criteria followed for specification of a community, as scheduled tribe are:
 - ► indications of primitive traits
 - distinctive culture
 - geographical isolation

- shyness of contact with the community at large
- ► backwardness
- At present, 533 tribes in India have been notified under Article 342 of the Constitution with the largest number of 62 tribes belonging to the State of Orissa.

What is the literacy trend of Indian tribes?

- Literacy is an important indicator of development among tribal groups.
- Overall literacy: The percentage of literacy of tribes was only 8.54 percent in 1961 which has increased to 63.1 percent in 2011.
- Male vs Female: But female literacy of tribes is only 54.4 percent compared to male literacy of 71.7 percent.
- Drop-out: Nearly 50% of the children from this social group drop out while transitioning from primary to secondary grades (based on the educational status recorded in the same census).
- Nearly 80% of them stop education when they are in grade X in other words, only 20% appear for the high-school examination.

What are the major issues/challenges of tribal education?

There are various critical issues and problems in the field of tribal education. They are as follows:

 Medium of language: Language is one of the important constraints of tribal children which prevents them access to education.

Medium of instruction

- Article 350A of the Constitution of India states that every state must have adequate facilities to teach children in their mother tongue.
- It is commonly assumed that tribal students are slow-learners. Overcoming the language barrier requires concerted efforts.



• The Odisha Government and civil society organisations have made some promising efforts to educate the Gonds, Bhils, Santals and other tribal groups in their mother-tongue.

- Tribal children are responding well to such innovative programmes, according to educationists.
- ► The literacy rate among the Koyas, Santals, Bhuyia, Bhatudi and Bhumiji, has steadily gone up over the years.
- **Article 351:** Article 351 provides a directive for development of the Hindi language.
- Location issues: The physical barriers create a hindrance for the children of a tribal village to attend the school in a neighboring village.
- Financial burden: The economic condition of tribal people is so poor that they do not desire to spare their children or their labour power and allow them to attend schools.
- **Family issue:** As education does not yield any immediate economic return, the tribal parents prefer to engage their children in remunerative employment which supplements the family income.
- **Teacher absenteeism:** In the remote tribal areas, the teacher absenteeism is a regular phenomenon. It affects largely the quality of education.
- Lack of proper monitoring: Proper monitoring is hindered by various issues and mainly by poor coordination between the Tribal Welfare Department and School Education Department.
- **Inadequate funds and human resource:** The biggest lacunae noted in the field of tribal education is the inadequate funds and human resources devoted to teacher capacity building and sensitisation on tribal context.
- How educating tribals will impact the country?
- **Improving the overall conditions:** The country has the single largest tribal population in the world. Education is the only light which can bring transformation in the overall condition of the tribal people in general and country in particular.
- Enhancing capabilities: With education, tribals will become capable of collectively bringing in significant changes and improving the whole community.
- Economic growth: Furthermore, education will not just benefit the tribal population, it will benefit

the entire economy. As education will provide them with diverse employment opportunities which in turn drive their consumption pattern leading to consumption driven growth in the economy.

- **Improved standard of living:** Education will also bring immediate changes in tribal's state of living and will further improve their future living conditions.
- **Human development:** Addressing the educational gap between the tribes and the mainstream society is important for improving human development indicators of the country.

Concerned Ministries and Organization

- Ministry of Tribal Affairs
 - The Ministry was set up in 1999 after the bifurcation of Ministry of Social Justice and Empowerment with the objective of providing more focused approach on the integrated socio-economic development of the Scheduled Tribes (STs).
 - The Ministry of Tribal Affairs is the nodal Ministry for overall policy, planning and coordination of programmes for development of ST's.
 - It covers all tribal people and all areas with tribal population across the country.
 - Social security and social insurance to the Scheduled Tribes
 - Tribal Welfare: Planning, project formulation, research, evaluation, statistics and training
 - Promotion and development of voluntary efforts on tribal welfare;
 - Development of Scheduled Tribes
 - Scheduled Areas
 - Monitoring of Tribal Sub-Plan, based on the framework and mechanism designed by NITI Ayog National Commission for Scheduled Tribes
 - ► The National Commission for Scheduled Tribes (Article 338)
 - Commission to report on the administration of Scheduled Areas and the welfare of the Scheduled Tribes.
 - Issue of directions regarding the drawing up and execution of schemes essential for the welfare of the Scheduled Tribes in any State

What are the Government initiatives for Tribal Education?

- **First FYP:** Starting from the First Five Year Plan Period1 (1951-1956) the government is steadily allocating financial resources for the purpose of tribal development.
 - ➤ Towards, the end of the plan (1954), 43 Special Multipurpose Tribal Development Projects (MTDPs) were created.
- **Third FYP:** During the Third Five Year Plan Period (1961-1966), the government adopted the strategy of converting areas with more than 66 per cent tribal concentration into Tribal Development Blocks (TBDs).
- **Fourth FYP:** By the end of Fourth Five Year Plan (1969-1974), the number of TBDs rose to 504. Additionally, in 1972 the Tribal Sub-Plan Strategy (TSP) was implemented by the Ministry of Education and Social Welfare.
 - TSP was based on twin objectives of socio-economic development and protection against exploitation.
 - It was generally implemented in the areas where the Scheduled Tribe population was more than 50 percent of the total population.
- PESA: The PESA (The Panchayats Extension to Scheduled Areas) Act, 1996 in fact, has made it mandatory for the States having scheduled areas to make specific provisions for giving wideranging powers to the tribes on the matters relating to decision-making and development of their community.
- Janshala Programme: The Janshala Programme is a collaborative effort of the Government of India (GOI) and five UN Agencies – UNDP, UNICEF, UNESCO, ILO and UNFPA.
 - It is a community based primary education programme, aims to make primary education more accessible and effective, especially for girls and children in deprived communities, marginalised groups, SC/ST/minorities, children with specific needs.
- **Ashram Schools:** The educational needs of tribal children are primarily addressed through residential schools called ashram schools.
 - There are more than 800 centrally-sanctioned ashram schools spread across the country. These provide boarding and lodging facilities to children in tribal areas until they complete their secondary education.
- Eklavya Model Residential Schools: Apart from these, government has also started Eklavya Model Residential Schools on the lines of KGBVs and Navodaya Vidyalayas.

What is the role of United Nations in tribals education?

- United Nations Children's Fund (UNICEF) has been promoting quality education and employability amongst marginalised children.
- Quality education for all: UNICEF, in collaboration with UNESCO, is supporting the Union government to achieve quality education for all children between 6 and 14 years.
- Some of the key areas for cooperation include
 - reaching out to vulnerable and deprived children
 - adapting international practices
 - supporting care providers and community advocates to demand inclusive and quality education.
- Child-friendly schools and systems (CFSS): One of the promising initiatives by UNICEF is to support for the development of the child-friendly schools and systems (CFSS) guiding principles, launched in 2014 and approved by the Union Ministry of Human Resource Development.
- To ensure effective implementation of CFSS, assistance has also been provided for monitoring tools and the integration of CFSS indicators into state plans in support of making child-friendly schools.
- Promoting the Rights of Disabled Children to Quality Education: Similarly, in collaboration with UNESCO, UNICEF is implementing a project titled Promoting the Rights of Disabled Children to Quality Education financially supported by the UN partnership to promote rights of persons with disabilities.
 - Under this project, UNICEF provides support to states to make primary education curriculum more inclusive for children with disabilities and building technical capacity of teachers.

How Government can improve the tribal education?

- Literacy awareness: To create the awareness about the importance of education, proper awareness campaign should be organized.
- **Counselling tribal parents:** The attitude of the tribal parents toward education can be improved through proper counseling and guidance.
- **Focus local languages:** Study resources and material should be supplied in local languages of tribes to increase engagement.
- **Financial assistance:** Special scholarships should be provided to the tribal students perusing higher education, particularly in medical, engineering, and other vocational streams.



- Residential schools: More residential schools should be established in each states and districts and extended up to PG level in tribal areas.
- Social security: Social security of students, especially of adolescent girls is of great concern in residential schools. Enough focus should be given to improving social security.
- Proper Monitoring: The functioning of schools should be frequently monitored relating to the teaching methods, working hours, and attendance registers.
- Teacher-student relationship: A cordial relationship between tribal students and their teachers is one of the critical factors to promote meaningful learning in classrooms. It is important to understand that tribal children do not have the

same backgrounds as their non-tribal schoolmates or teachers.

• **Tribal leadership**: Integration of tribal youth in their culture is imperative.

ONCLUSION

The present situation demands for effective collaboration and strategic discourse between government, policy-makers, civil society organizations and international development institutions to collectively put efforts to address the chronic problems and allocate adequate funds for tribals education. A long-term strategy is required to enhance educational status of tribal children.

ONE YEAR ON, NO WITHDRAWAL OF PATHALGADI CASES

CONTEXT

- In December 2019, the state government of Jharkhand had decided to drop "all cases" related to the Pathalgadi movement of 2017-2018.
- Almost a year later, the government is still to send a requisition to the court to withdraw the cases, many of which involved charges of sedition.

BACKGROUND A

- The Jharkhand government in May 2016 had attempted to tweak Chhotanagpur Land Tenancy Act, 1908 and the Santhal Pargana Tenancy Act, 1949.
 - These Acts were regarded as a rakshya kavach (protective shield) for the land of tribals.
- However, the bill never got the go ahead due to massive protest by tribal communities.
- This led to violence in the state capital and protests were held in various parts of the state.
- As an extension to this protest, the tribals of Khunti, Gumla, Simdega, Saraikela, West Singhbhum area started erecting stones in their villages with PESA provisions highlighting their rights which came to be known as **Pathalgadi movement.**
- During the Pathalgadi movement, many villages saw people gathering from surrounding areas with bows and arrows to 'assert their rights'.
- This resulted in a crackdown leading to the death of a tribal, Birsa Munda – named after the freedom fighter.
- Following this, cases were registered against several villagers.
- In December 2019, the state government promised to drop the cases filed against the supporters of the Pathalgadi movement in 2017 and 2018.

ANALYSIS ANALYSIS

What is Pathalgadi?

- The Pathalgadi movement originated in the Khunti area of the state.
- 'Pathalgadi' literally means 'carving a stone' it is an ancient tradition in the tribal communities of Jharkhand.

Stone plaques

- Stone plaques and signboards dismiss the authority of the central or the state governments on their villages.
- These are meant to serve as warnings to the outsiders.
- The stone plaques and signboards also contain "orders" prohibiting outsiders from entering the tribal village.
- They proclaim allegiance to the Constitution but reject any authority except their gram sabhas (village assemblies).
- They claim to be the real "Bharat Sarkar" (the government of India).
- Their fight is aimed to reclaim their rights over "jal, jangal and zameen (water, forest and land)".
- Adivasis usually erected engraved stones to mark the birth or death of a person.
- It is also done in honour of their ancestors, to announce important decisions regarding their families and villages or to simply mark the boundary of their villages.
- The practice is still being followed even today in the Munda areas of Khunti.
- Pathalgadis have their presence in Jharkhand, Chhattisgarh, Odisha and parts of West Bengal and Madhya Pradesh.
- This was first used to create political awareness when the Panchayat (Extension of Scheduled Area) Act (PESA) came into force in 1996.
 - That Act empowered the gram sabhas or panchayats to safeguard and preserve their traditions, community spaces and culture, and gave them the right to mandatory consultation in land acquisition.
- The Fifth Schedule of the Constitution deals with the administration and control of Scheduled Areas as well as of Scheduled Tribes.

How this practice became strong?

The Pathalgadi practice took on a new meaning after tribal activists, former IAS officer B.D. Sharma (now deceased) and IPS officer Bandi Oraon, initiated the practice of erecting stones outside villages after the Panchayat (Extension of Scheduled Area) Act came into existence in 1996.

These stone plaques are still reportedly found in four districts in Jharkhand – Khunti, Gumla, Simdega and West Singhbhum.

They are found at the entry of villages and often prohibit outsiders from entering the village.

Revival of the movement

- The Pathalgadi movement was to save tribal land rights, when the Jharkhand government introduced amendments to the Chotanagpur Tenancy Act (CNT) 1908 and the Santhal Pargana Tenancy (SPT) Act 1949
- It started in 2017, when stone monoliths engraved with provisions of the Indian Constitution began to be installed in the villages of Khunti.
- The engravings highlighted the special autonomy granted to Adivasi areas under the Fifth Schedule of the Indian Constitution.

Chotanagpur Tenancy (CNT) and Santhal Pargana Tenancy (SPT) Acts

- The CNT Act was enacted in 1908, eight years after the death of Birsa Munda. This Act extends to the north and south Chotanagpur and Palamau divisions.
- The SNT Act was passed in 1949, extending to Dumka, Sahibganj, Godda, Deoghar and Pakur in the Santhal Pargana region in eastern Jharkhand.
- Since both Chota Nagpur and the Santhal Pargana are tribal-populated regions in Jharkhand, these Acts contained elaborate rules to protect their land rights. Together, these Acts granted special protection and land rights to the tribals and prohibited the **transfer of tribal land to non-tribals** or the commercial use of the land without the permission of the concerned gram sabha.

What was the response to the ordinance?

 In response to the Bill, stone plaques were installed in villages of Khunti district with the Fifth Schedule of the Constitution engraved on them.

- This was a reminder of the autonomy provided to the gram sabha and the tribal communities as per the Constitution of India.
- Soon, the Pathalgadi movement spread to other tribal districts in Jharkhand and even to the neighbouring state of Chhattisgarh.
- The Jharkhand Assembly passed the ordinances in June 2017, causing protests by tribal communities and opposition from political parties like the Congress and the JMM.
- In August 2017, the two amended Bills were withdrawn.
 - Land is at the core of tribal societies' survival.
 - As per the customs of Munda and Santhal tribals, the ownership of land belongs to all the families of the same *killi* (clan), who cleared the forest and made land cultivable.
 - This age old custom provides an identity of being a Munda or Santhal and their country.

The cases

- In November 2019, the Jharkhand Police had filed sedition cases against more than 10,000 people between June 2017 and July 2018 in Khunti district.
- Under the sedition law, the people were booked for "exciting, or attempting to excite feelings of disaffection against the government."
- But the new Hemant Soren-led JMM government dropped all sedition cases against those involved in the Pathalgadi movement in December 2019 and those booked in protests against CNT and SPT amendments.
 - Section 124 A of the Indian Penal Code pertains to sedition
 - Section 120A deals with criminal conspiracy
 - **Section 120B** doles out punishment for the criminal conspiracy cases.

What were the 'specific' demands of the Pathalgadis?

- Self-rule: Pathalgadis started asking for self-rule and said that the government should enter their area with Gram Sabha permission.
- No outsider allowed without permission: Quoting Article 19 (5) of the Indian Constitution,

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they said outsiders are not allowed to live and work in adivasi villages without permission. The administration'spamphletcallsthisunconstitutional and violative of fundamental rights.

 No common formalities: They did not believe in Voter-ID cards or Aadhar cards, saying that it is for 'common people', and they did not follow it since they "khas admi".

Is Pathalgadi movement 'inspired' from Satipati movement?

- It is widely believed that Pathalgadi movement is "inspired" from Gujarat's Satipati movement that denounces the government of India and doesn't believe in its laws.
 - Satipati followers believe that they have the sovereign right over the forest and other natural resources.
 - They are known for boycotting votes and government benefits, among others.
 - However, the Satipati movement has remained non-violent in the state, which originated from Vyara in Tapi district by Kunwar Keshri Singh.
- The Pathalgadi movement, which also seeks Adivasi rights over the resources by self-rule and prohibits outsiders, has gone violent on many occasions.
- Pathalgadhi is said to have originated from Khunti district, the birthplace of tribal icon Birsa Munda.

Analysis of tribal rights in India

- Tribal people constitute 8.6% of the nation's total population, over 104 million people according to the 2011 census. About 15 percent of land area in India is occupied by tribal communities
- Domestic level
 - Schedules: The Fifth and Sixth Schedules of the Constitution carve out a separate legal and administrative framework for certain designated tribal majority areas within the territory of India.
 - **Fifth Schedule:** It designates tribal majority areas in ten tribal minority states within peninsular India including, Andhra Pradesh, Telangana, Gujarat, Jharkhand, Chhattisgarh, Himachal Pradesh, Madhya Pradesh, Maharashtra, Orissa and Rajasthan.
 - **Sixth Schedule:** It designates such tribal majority areas in north eastern states, including Assam, Meghalaya, Mizoram, and Tripura. Of these, Meghalaya and Mizoram are tribal majority states.
 - Forest Rights Act, 2006 which protects the individual and community rights of tribal

people in forest areas and their right to free and prior informed consent in event of their displacement and resettlement.

- Article 15 pertaining to prohibition of discrimination on grounds of religion, race, caste, sex or place of birth
- Article 16 pertaining to equality of opportunity in matters of public employment
- ➤ Article 46 pertaining to promotion of educational and economic interests of scheduled castes, scheduled tribes and other weaker sections
- Article 335 pertaining to claims of scheduled castes and scheduled tribes to services and posts.
- As per Article 338-A of the Constitution of India, the National Commission for Scheduled Tribes has been set-up.
 - The Commission investigate and monitor all matters relating to the safeguards provided for the Scheduled Tribes

International Conventions

- UNDRIP: The United Nations Declaration on the Rights of Indigenous People (UNDRIP), adopted in 2007, for which India voted, recognises among other things indigenous peoples' rights to self-determination, autonomy or selfgovernance, and their right against forcible displacement and relocation from their lands or territories without free, prior and informed consent.
- ➤ Indigenous and Tribal Peoples, 1989: There is the International Labour Organisation (ILO) Convention concerning Indigenous and Tribal Peoples, 1989 which is based on the "respect for the cultures and ways of life of indigenous peoples" and recognises their "right to land and natural resources and to define their own priorities for development."
 - India is not a party to this, but it is a party to the ILO Convention concerning the Protection and Integration of Indigenous and Other Tribal and Semi-Tribal Populations in Independent Countries, 1957 which is outdated and closed for ratification.

• CONCLUSION

Jharkhand's eagerness to attract huge industries in the state or to perhaps improve its position or rating is coming at a huge price. Tribals consider land as God. For centuries, these people have been closely linked with forests, it has always been their way of life. They should not be alienated from their lands, otherwise, it would be a crime.



UK 'FINALLY' STRUCK A POST-BREXIT TRADE DEAL WITH EU

CONTEXT

Britain clinched a historic deal with the European Union as both sides managed to thrash out a post-Brexit free trade agreement just days before the December 31 deadline.

• BACKGROUND

- Some 47 years after joining the European Union, Britain officially left the bloc on January 31, 2020.
- In doing so, it became the first ever nation to leave the EU known as 'Brexit-British exit', after the referendum of June 2016 in which Britons voted 52% to 48% to leave the EU.
- However, it agreed to continue following European rules until the end of 2020 so it could negotiate friendlier trading conditions with the 27 other nations.
- Since then the UK and the EU have been trying to define the future contours of their relationship but the negotiations went to the wire, as the current arrangement ends on 31 December.
- Though the details of the final pact are yet to be released, the full document is about the new rules for how the UK and EU will live, work and trade together.

• ANALYSIS

What are the EU and Brexit?

- The European Union is made up of 27 European countries.
- EU citizens are free to live and work in other EU countries, and firms in those countries can buy and sell each other's goods without checks or extra taxes at borders.
- The UK first applied to join what was then the European Economic Community in 1961 and finally became a member in 1973.
- Now called the European Union, it has grown to include former Soviet bloc states and has at its heart a "single market" allowing goods and people to move freely.
- The UK was the first country to leave the EU and this was known as Brexit British exit.
- Brexit happened because a public vote or referendum - was held in June 2016, to decide whether the UK should be in the EU.

The history behind Brexit

- In 1957, France, West Germany, Belgium, Italy, Luxembourg and the Netherlands signed the Treaty of Rome, which established the European Economic Community (EEC), the predecessor of today's European Union.
- When the United Kingdom first applied for membership in the EEC in 1963, its application was vetoed.
- The UK finally made it into the club in 1973, but just two years later was on the verge of backing out again.
- Tensions between the EEC and the UK exploded in 1984, due to talks to reduce British payments to the EEC budget.
- The **Maastricht Treaty**, which took effect in 1993, created the Brussels-based European Union (EU), of which the EEC, renamed simply the European Community (EC) was the main component.
 - ➤ The EU was designed to integrate Europe's nations politically and economically, including:
 - a united foreign policy
 - common citizenship rights
 - a single currency, the euro (for most member nations, not including the UK)
 - ► In 2013, David Cameron promises a referendum if the Conservatives win the election.
- In 2015, the Conservatives win the election.
- Following a referendum Britons vote 52 percent to 48 percent in favour of leaving the EU.

What is the deal all about?

- The deal contains new rules for how the UK and EU will live, work and trade together.
- The two sides reached a "zero tariff-zero quota





deal" which will help smooth the trade of goods across the channel.

- Though the detail are not known yet because the full document has not been released.
- However, it signals that:
 - No taxes on each other's goods when they cross borders (known as tariffs)
 - No limits on the amount of things which can be traded (known as quotas)
- The UK and EU will "continue co-operating in all areas of mutual interest, including things like climate change, energy, security and transport".

Key points from the deal:

- Guarantees: Zero tariffs and quotas on goods
- Movement: The end of free movement, meaning UK citizens will no longer have the right to work, live, study, or start a business in the EU without a visa
- **Border checks:** Border checks will apply between the UK and EU member states
 - There will be no hard border on the island of Ireland between the Republic of Ireland and Northern Ireland



• **Fishing activities:** The UK will be able to further develop British fishing activities for at least 5-and-a-half years, during which time European fishing communities will be safeguarded

- **Climate commitment:** A shared commitment to protecting the environment, to fight against climate change and carbon pricing
- Labour rights: A shared commitment to protecting social and labor rights
- **Taxation:** Keeping standards on tax transparency
- **Transport sector:** Passengers' and workers' rights in the transport sector
- **Participation in EU programs:** The UK's continued participation in a number of EU programs until 2027 such as Horizon Europe, subject to a UK financial contribution.

Assessing the impacts

- No free movement: Even with a trade deal, goods and people will no longer be able to move freely between the U.K. and its continental neighbors without border restrictions.
- Visas: EU citizens will no longer be able to live and work in Britain without visas -- though that does not apply to the 4 million already doing so - and Britons can no longer automatically work or retire in EU nations. Exporters and importers face customs declarations, goods checks and other obstacles.
- **Strengthening economy:** The agreement would help mitigate economic disruption and could provide a starting point for constructive future economic and political relations.
- **Green signal for businesses:** Given that the EU is the UK's biggest trading partner, this is big deal for the businesses which were getting jittery about the prospects of a deal Brexit.
- **Fulfilling goals:** Both sides claim that the deal protects their cherished goals.
 - Britain said it gives the U.K. control over its money, borders, laws and fishing grounds.
 - ➤ The EU says it protects the EU's single market and contains safeguards to ensure that Britain does not unfairly undercut the bloc's standards.

How would the deal impact India?

 India may emerge as a net gainer from the Brexit deal signed between the UK and the EU as services exports from Asia's third-largest economy are likely to benefit from the curbs on the free movement of professionals between the two markets.

- The country should explore opportunities in service sectors like IT, architecture, research and development and engineering.
- India would now be able to sign trade deals separately with both the EU and the UK.

The bilateral trade between India and the UK dipped to \$15.5 billion in 2019-20 from \$16.9 billion in 2018-19.

What are the unaddressed challenges in the deal?

The challenges remain on multiple fronts.

- The operationalization of this deal will be closely watched as the new year will commence with some immense changes for ordinary Britons.
- **Unaddressed service sector:** Also, this agreement doesn't deal with services which will have to be taken separately later on and that will be critical for the UK given its huge services sector.
- Lack of negotiating space: This will be particularly difficult time for the UK financial sector whose entry into the EU would depend on EU's decision without any negotiating space for the UK.
- **Data flow:** The data flow between the two will also have to be addressed later on.
- Unprecedented challenges: With the continuing Covid-19 pandemic, decelerating economies, an inward looking America, a belligerent China, and an unprecedented flux in the Indo-Pacific, both the EU and the UK have to look beyond their immediate periphery.

What remained unanswered through the deal?

- Despite the deal, there are still unanswered questions about huge areas, including:
 - security cooperation between the U.K. and the bloc
 - access to the EU market for Britain's huge financial services sector.

The road ahead

• Even though the deal has been agreed, it still needs to be made law. For that to happen it must be looked at and approved by both the UK and European parliaments. As it's been left so late, the European Parliament won't have time to sign it off before the end of the year. However, the deal will come into force on 1 January in any case with both sides trying to get over this last hurdle without any further delays.



FIRST CENTRE OF EXCELLENCE FOR SKILL DEVELOPMENT

CONTEXT

In a significant development and in line with the commitment to skill development and vocational training, the first Centre of Excellence for skill development in the power sector has been inaugurated.

BACKGROUND A BACKGROUND A

- India is taking rapid strides to move towards renewable energy to accelerate economic development, improve energy security and energy access while mitigating climate change challenges too.
- The county's success in achieving all of these demands for a rich pool of workforce in the energy sector to propel India to become one of the top leaders in the world's renewable energy market.
- Sustained efforts towards boosting the growth of renewable energy sector will play a significant role in helping the country inch closer to fulfilling the Prime Minister's vision of 'Aatmanirbhar Bharat'.
- India's recent partnership with Government of France for instituting the Centre of Excellence is another shining example of cooperation between the countries to achieve their long-terms energy goals.

• ANALYSIS

What led to the establishment of CoE?

- The establishment of CoE is a result of the MoU signed earlier between MSDE, Ministry of Education-France and Schneider Electric.
- **In collaboration:** The centre was inaugurated in collaboration with the Ministry of Skill Development and Entrepreneurship, Government of India, along with the Ministry of National Education and Youth, Government of France and Schneider Electric.
- Sector: The first Centre of Excellence for skill development in the power sector has been inaugurated for skill development in power sector.
 - The first Center of Excellence (CoE) for skill development is inaugurated in the power sector in the campus of National Institute of Solar Energy (NISE) located at Gwal Pahari, Gurugram (Haryana) to create a robust cadre of certified trainers and assessors across the country.
- Further, an operational MoU was signed between National Skill Development Corporation (NSDC),

Schneider Electric India Foundation (SEIF), Power Sector Skill Council (PSSC) and National Institute of Solar Energy (NISE) for establishment of the centre, and to undertake high level training and skill development in the field of power and solar.

What will this CoE do?

- The Centre will focus on creating a pool of highly skilled trainers and assessors for further training to increase employability of candidates in the field of Electricity, Automation and Solar Energy Sectors.
- The centre will design and deliver Training for Trainers, Instructors, Training of Assessors and other high-end programme in the power and solar sector.
- The CoE has high-end modern labs designed keeping in mind the future technology, which will further strengthen India and France's relationship in energy sector.
- The CoE will be equipped with two labs, which have been set up by Schneider Electric as a part of its CSR initiative.
 - ► The **Advance Electrician Lab** is equipped with specially designed instruments for training in home and building, and industry installation and automation.
 - ► The **Solar Lab** will provide hands on practical training on latest technology in solar area.

How will it be done?

- With the launch of CoE, online training of assessors will commence which will include trainers from all over the country.
- In addition, training of youth is also being considered in the center.
- Power Sector Skill Council has also developed necessary learning contents for various job roles in generation, transmission, distribution and downstream sub sectors to facilitate learning.
- The Department of Education, France, deputed an expert to India for three years to conceptualise, design and head the proposed CoE.
 - ► He has contributed by proposing the layout, guidelines, and best practices in electrical domain.



How will it be managed?

• **Power Sector Skill Council** will be managing the operations of the centre.

Power Sector Skill Council

- Power Sector Skill Council (PSSC) has been set up as a Society under **Society Registration Act 1860** with the objective of facilitating the skill development activities including capacity building for training delivery to meet the needs of Power Industry.
- The purpose of establishing the Power Sector Skill Council (PSSC) is to ensure that skilled and certified manpower in adequate numbers is provided across various segments of this industry.
- It major objectives are:
 - Facilitate comprehensive engagement with Power Utilities.
 - Sharing skill and employability concerns.
 - Help in identification of major job roles with high employment volumes.
 - ► Inputs for development of NOS/QPs.
 - Support in NOS/QPs development study by PSSC Consultants.
 - Support for validation.
 - Power Equipment Manufacturing Sector.
 - Preference in employment: Recruitment Rules to be NSQF skill level compliant.
 - To consider PSSC certified workmen, both permanent and outsourced in employment.

What are the challenges in the power sector?

• **Shortageofworkerswithrequisitecompetencies:** The power sector faces an enormous shortage of workers with requisite competencies. • **Lack of skills:** With digitalisation driving across the value chain, skill development becomes imperative for the entire sector and all the more so in the distribution sector.

What are the recent government initiatives to enhance skills?

- **Skill India initiative**: The Government launched the Skill India Initiative in 2015.
- **Dedicated ministry:** The government has also created a dedicated Ministry for Skill Development and Entrepreneurship.
- Coordinating agencies: The National Skill Development Agency and the National Skill Development Corporation (NSDC) have also been created with the objective of coordinating and guiding all central government ministries involved in skill development initiatives.
- Qualification Packs/National Occupational Standards (QPs/NOSs): One of the key initiatives taken by the PSSC is the development of Qualification Packs/National Occupational Standards (QPs/NOSs) with reference to key job functions in the sector that have high employment potential.

Significance of the CoE

- Boost in relationship: With the help of advanced labs and future technology the CoE will boost the relationship between India and France in the energy sector.
- Enhance skill development: It will significantly enhance the training and skill development in the field of power and solar.

• CONCLUSION

COVID-19's impact on the Indian electricity sector and electricity demand has been significant. Based on current policies, India's energy demand could double by 2040, with electricity demand potentially tripling as a result of increased appliance ownership and cooling needs. Without significant improvements in energy efficiency, India needs to skill its manpower to meet the rising demands.



WHAT ARE THE HEALTHCARE ETHICS IN A GLOBAL CRISIS?

CONTEXT

- With the limited health care resoures and that too in the case of unprecedented demands (COVID-19), the decision making authorities face challenges in healthcare ethics.
- It is imperative to understand the healthcare ethics and its importance in dealing with difficult crisis.

• BACKGROUND

- There are more than 150 COVID-19 vaccines currently in development and an estimated 10 billion vaccine doses eventually will be delivered around the globe.
- Now, at this critical juncture of global vaccine shipping, healthcare ethics has taken the centre stage.
- All healthcare resources are limited staff, equipment, drugs, space and time can all run out.
- Decisions about the use and allocation of scarce resources are regularly made in medicine. These usually proceed on the basis of those with the greatest medical need being given priority.
- But the way these allocation decisions are made in crisis situations differs.
- The current unprecedented health crisis is testing our ability to make appropriate choices and health decisions.
- These decisions are not limited to an individual but have an all-encompassing influence on the broader population. Therefore, these health decisions have to be moral and ethics based.

• ANALYSIS

The ethical dilemma

- From resource allocation and priority-setting, physical distancing, public health surveillance, health-care worker's rights and obligations to conduct of clinical trials, the COVID-19 pandemic presents serious ethical challenges.
- Prioritizing people over people: Decisions on how to allocate such limited resources are made in the full knowledge that hospital staff must prioritise some people over others – and that not all lives will be saved.
 - Decisions will likely be simplistic such as
 - age of the patient
 - health conditions
- Concerns regarding end-of-life support: Furthermore, the crisis raises ethical concerns not only surrounding triage and withdrawal of life

support decisions, but also regarding family visits and quality of end-of-life support.

- **Risk of 'sacrificing' vulnerable patients:** Faced with a massive influx of patients and extreme scarcity of ICU beds, the risk of "sacrificing the most vulnerable patients" shakes ethical convictions.
- Discrimination: It could lead to disadvantaged groups being systematically discriminated against.
- **Disposal of dead bodies:** Disposal of dead bodies is a big concern.

What are the challenges faced?

- Maximum number of people or greatest number of years: It might be interpreted as simply the number of people saved or it might be interpreted as the greatest number of years of life saved. And if maximising the number of people whose lives are saved is the overarching ethical goal, governments and medical staff need to establish how this is best achieved.
- Ventilator occupancy: Lifesaving ventilation is offered on a basis of prioritising those who will be most likely to survive as a result of the intervention. This may also be combined with the likely speed of their recovery – as this would free up ventilators for others sooner. This combination reflects the ethical goal by offering the highest probability that the greatest number of lives will be saved overall.
- **Discrimination against disadvantaged group:** But in high-pressure situations, any such approach will likely be simplistic – such as an algorithm based on the age of the patient and any health conditions. This could lead to disadvantaged groups being systematically discriminated against.
 - The elderly and those with underlying health conditions, for example, could be unprioritised because they will be less likely to survive or take longer to recover.
 - Even if additional considerations are added to the process – such as the potential quality of life or subsequent length of a person's life – these groups are likely to fare badly.
- **Healthcare workers:** There is an ethical consensus that healthcare workers have a *prima facie* duty to work. However, the obligation of healthcare workers to show up for their jobs is not absolute.



 Males over females?: Another major ethical challenge revolves around gender. Males have been found to be at a greater risk of progressing to severe disease and even dying compared with females.

Why evaluation of ethics is important?

- Ethics is shaped based on the ingraining of values in subjects and the society in which they are inserted, and, from this set, each one proposes their actions.
- That being said, it is necessary to valuate to intervene.
- It is worth noting that the medical field assigns a different value to life, according to age, providing distinct care to children, adults, and the elderly.
- From this perspective, the ethical values necessary to ration healthcare resources in an epidemic have high prestige.
- It can converge into some proposals based on fundamental values, such as
 - maximizing the benefits produced by scarce resources
 - treating people equitably
 - promoting and recommending instrumental values
 - giving priority to critical situations

What needs to be done?

- Positive discrimination: Strict adherence to the overarching moral goal of maximising lives saved might also require aspects of positive discrimination. If, for example, the patient is a highly-skilled, older medic, then prioritising them might result in more lives overall being saved.
- Maximize benefits: The priority of limited resources should aim at saving as many lives as possible and maximizing improvements throughout life post-treatment. This premise is consistent both in the perspective of utilitarian and non-utilitarian ethics.
- **Privacy:** There has to be a balance between protecting a person's right versus safeguarding public interests.
- **Clear ethical basis:** When it comes to life and death prioritisation, to be justifiable, these decisions must be made from a clear ethical basis.
- Fair distribution/allocation of resources: Hospitals must consider how they can distribute the resources they have fairly.
- Effective evaluation of gaps and challenges: Given the economic, societal, and operational ramifications of the COVID-19 pandemic, healthcare leaders should consider which aspects

of their business models are resilient and which will face challenges as value pools shift.

• **Innovation:** The high human and economic costs associated with COVID-19 make it essential to rapidly accelerate and scale medical innovations, while ensuring that patient safety and quality of care remain central.

WHO on Ethics and COVID-19

- WHO has established an international Working Group on Ethics and COVID-19 in order to develop advice on key ethical questions that Member States need to address.
- The expert group also advises WHO's technical units regarding ethical aspects of their COVID-related work.
- Since its formation in February 2020, the group has been engaged in the following activities:
 - Advice on ethical considerations in COVID-19 research
 - Practical guidance on the application of ethical values central to COVID-19 research published in the journal "Public Health Ethics"
 - A policy brief on resource allocation and priority setting in COVID-19 care
 - Providing ethics input into the WHO's Clinical Management Guidelines and training
 - Feedback provided on the Solidarity Trial protocol
 - Development of emergency standard operating procedures for human research committees to facilitate rapid review of protocols during the COVID-19 pandemic
 - Advice on the criteria that must be satisfied for SARS-CoV-2 challenge studies to be ethically acceptable
 - ➤ Considering other areas: Immunity certificates, MEURI (i.e., monitored emergency use of unregistered and experimental interventions) and the fair global allocation of vaccines, therapeutics, and diagnostics.

ONCLUSION

Both government and healthcare workers need to be open, public and clear about the basis of selective prioritisation. It also needs to be made clear that criteria will be revisable as information and situations change. Such an approach would also need to be systematically enforced – so that universal and applied to all. Without such clarity and fairness, confidence, trust, solidarity and support for health systems would become irreparably damaged in the longer term.



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RIGHT OF THE PEOPLE TO THE SENTINEL ISLAND IS NON-NEGOTIABLE: ANSI

CONTEXT: In a policy document, which comes almost two years after American national was allegedly killed by the Sentinelese on the Island, the Anthropological Survey of India (AnSI) says the "right of the people to the island is non-negotiable".

• ABOUT: Who are Sentinelese?

- The Sentinelese people are from an endangered Indian tribe living in North Sentinel Island, located near the Andaman Islands in the Bay of Bengal, India.
- With a population of about 50 to 100, they are among the most isolated of nearly 70 PVTGs across the country.
- They are a primitive hunter-gatherer tribe that entirely relies on the sea and the island forests for food and other resources.
- Also, they are among the five in the Andaman and Nicobar Islands which include Great Andamanese, Onge, Jarawa, and Shompens.
- They are particularly vulnerable tribal group (PVTG).

Particularly vulnerable tribal group (PVTG)

- **The particularly vulnerable tribal group (PVTG)** is a Government of India classification created with the purpose of enabling improvement in the conditions of certain communities with, particularly low development indices.
- Currently, 75 tribal groups have been categorized by the Ministry of Home Affairs as Particularly Vulnerable Tribal Group (PVTG).



What are the key observations made by AnSI?

The following observations were made after the first detailed policy draft for the Sentinelese island, prepared at the request of the Andaman and Nicobar Administration.

- Any exploitation of the North Sentinel Island of the Andamans for commercial and strategic gain would spell the death knell for its occupants, the Sentinelese.
- Right of the people to the island is non-negotiable. These rights are unassailable, non-negotiable and uninfringeable.
- The prime duty of the state is to protect these rights as eternal and sacrosanct.
- Therefore, their island should not be eyed for any commercial or strategic gain, for if it were to happen, it surely would be a death knell for its occupants.

Is India doing enough to protect the tribals?

- Indeed, the Indian Constitution is supposed to protect tribal interests, especially tribal autonomy and their rights over land, through the Fifth and Sixth Schedules.
- In India, most of the tribes are collectively identified under Article 342 (1&2) as "Scheduled Tribes".
- Their right to self-determination is guaranteed by Part X: **The Scheduled and Tribal Areas – Article 244: Administration of Scheduled Areas and Tribal Areas.**
- Tribals in India are also protected under the PESA Act that was in acted on December 24, 1996 to enable tribal self rule in these areas.
- Then, there are the Panchsheel Principles of Pandit Jawaharlal Nehru, meant to guide government actions in dealing with tribal people.
- Though, India has very enlightened laws dealing with tribals and indigenous people after independence. The actual treatment meted out to tribal people has been mixed.

What needs to be done?

- **More knowledge about the tribe:** Along with maintaining the territorial integrity of the North Sentinel Island, the document calls for building a knowledge bank on the Sentinelese.
- **Study of culture, but from distance:** Since 'on-the-spot study' is not possible for the tribal community, anthropologists suggest the 'study of a culture from distance'.

Value Addition

- Anthropological Survey of India
 - Anthropological Survey of India is the only research organisation to pursue anthropological research in a Governmental setup.
 - The Anthropological Survey of India's genesis was from the Zoological and Anthropological section of the Indian Museum, which became the Zoological Survey of India in 1916.
 - ➤ In 1945, Anthropology section of the Zoological Survey was carved out to become the Anthropological Survey of India (An.S.I) with Dr B.S.Guha as the founding Director, in 1946.
 - Headquarters: Kolkata, West Bengal
 - Parent organisation: Ministry of Culture, Government of India

AGRICULTURE COST OF PRODUCTION

• CONTEXT: The farmers across India are protesting and one of main reason behind the farmers' protest is the Minimum Support Price (MSP) for crops which raises question on the cost of Production.



• ABOUT:

How the cost of agricultural produce is calculated?

- Broadly, the costs are divided into two broad categories viz.
- **Fixed costs:** These are fixed. In agriculture, land in some sense is a fixed capital. The other important items of fixed costs are implements and tools, machinery, farm buildings, work animals etc.
- Variable costs: These costs vary with the production. One can increase or decrease their use. In agriculture, cost of seed, manure's and fertilizers, irrigation, labour are the variable costs.
- The sum of fixed costs and variable costs forms the 'total cost', when the total expenditure is deducted from the total returns (income), one gets the 'net profit'.



How the different costs are categorized?

- **Cost –A:** Actual paid out costs for owner cultivator. This cost approximates the actual expenditure incurred in cash and kind and includes the following items:
 - Hired human labour
 - Owned and hired bullock labour
 - Seeds
 - Manures and fertilisers
 - Implement charges
 - Land revenew and other taxes
 - Irrigation charges
 - Other miscellaneous charges
- **Cost –A-1:** Corresponding cost for the tenant cultivator, i.e. including rent actually paid by him.
- Cost -A-2: Cost A plus imputed value of own labour.
- **Cost B:** Cost A plus rental value of owned land and imputed interest on demand capital.
- Cost C: total of all cost items, actual as well as imputed.

How is MSP Calculated?

- The Commission for Agricultural Costs & Prices (CACP) in the Ministry of Agriculture would recommend MSPs for 23 crops.
- These included 14 grown during the kharif/post-monsoon season and six in rabi/winter (wheat, barley, chana, masur, mustard and safflower), apart from sugarcane, jute and copra.
- The CACP considered various factors while recommending the MSP for a commodity, including cost of cultivation.



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- It also took into account
 - the supply and demand situation for the commodity

- market price trends (domestic and global) and parity vis-à-vis other crops
- implications for consumers (inflation), environment (soil and water use)
- terms of trade between agriculture and non-agriculture sectors

Swaminathan Committee

- The Swaminathan Committee prescribed three variables to determine the production cost. These three variables are:
 - ► A2
 - ► A2+FL
 - ► C2
- As per the Committee, the ideal formula to calculate the MSP would be:
- **MSP** = C2+ 50% of C2
- **The 'Price Policy for Kharif Crops:** The Marketing Season 2018-19' of the CACP stated the given 1.5 times formula to calculate the MSP:
- 1.5 times MSP Formula = 1.5 times the A2+FL costs

GOVERNMENT EXPLORING SETTING UP BAD BANK, ALL OTHER OPTIONS

• CONTEXT:

In order to improve the health of the country's banking sector, the government is exploring all options, including setting up of a bad bank.

• ABOUT:

What is bad bank?

- A bad bank buys the bad loans and other illiquid holdings of other banks and financial institutions, which clears their balance sheet.
- Currently, banks sell their bad loans to asset reconstruction companies as per the prudent norms of the Reserve Bank of India.

What is Non-Performing Asset?

- Non Performing Asset (NPA) is those kinds of loans or advances that are in default or in arrears.
- In other words, these are those kinds of loans wherein principal or interest amounts are late or have not been paid.
- These are also the kinds of loans where the lender considers the loan agreement to be broken and the receiver of the loan is unable to pay back the loan amount.

Types of NPA

- Standard Assets: It is a kind of performing asset which creates continuous income and repayments as and when they become due. These assets carry a normal risk and are not NPA in the real sense of the word. Hence, no special provisions are required for standard assets.
- **Sub-Standard Assets:** Loans and advances which are non-performing assets for a period of 12 months, fall under the category of Sub-Standard Assets.



CURRENT AFFAIRS WEEKLY

• **Doubtful Assets:** The Assets considered as non-performing for a period of more than 12 months are known as Doubtful Assets.

• Loss Assets: All those assets which cannot be recovered by the lending institutions are known as Loss Assets.

When a loan is classified as NPA?

- Non Performing Assets are basically Non Performing Loans.
- In India, the timeline given for classifying the asset as NPA is 180 days. As against 45 to 90 days of international norms.

THE INDIA STATE-LEVEL DISEASE BURDEN INITIATIVE

• CONTEXT: Some 1.7 million Indians died due to air pollution in 2019, according to a report by interdisciplinary journal Lancet Planetary Health.

• **ABOUT:** What is the report all about?

- The report '*The India State-Level Disease Burden Initiative*' estimates health and economic impacts of air pollution, both from indoor and outdoor sources.
- The findings in the paper highlight that the disease burden due to household air pollution is reducing in India but the same has increased due to ambient outdoor air pollution.
- The report released December 21, 2020.
- Key-findings of the Report
- The toll in India was 18 per cent of the total deaths in the country.
- The report has both good and bad news for India:
- **Indoor, or household, air pollution** caused 64 percent fewer deaths in the last two decades (1990-2019).
- Outdoor air pollution, or ambient air pollution, is not only increasing but also killing more. The death rate from outdoor ambient air pollution has increased during this period by 115 percent.

What about economic losses?

- **Premature deaths and morbidity:** India has lost 1.4 percent of GDP due to premature deaths and morbidity from air pollution.
- It is equivalent to Rs 2,60,000 crore in monetary term, more than four times of the allocation for healthcare in the Union budget for 2020-21.
- The economic loss due to lost output from premature deaths and morbidity attributable to ambient particulate matter pollution ranged from \$9.5 million in the small northeastern state of Arunachal Pradesh to \$3188.4 million in the northern state of Uttar Pradesh.
- **Lung disease:** Of the total economic loss of \$36.8 billion, lung diseases caused by air pollution accounted for the highest share- 36.6 percent.
- 36.6% was from lung diseases, which included chronic obstructive pulmonary disorder (21.1%), lower respiratory infections (14.2%), and lung cancer (1.2%).
- The rest was from ischaemic heart disease (24.9%), stroke (14.1%), diabetes (8.4%), neonatal disorders (13.3%), and cataract (2.7%).



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- Loss in major states: The economic loss due to air pollution as a percentage of the state GDP was higher in the northern and central India states, with the highest in Uttar Pradesh (2.2 percent of GDP) and Bihar (2 percent of GDP).
- Delhi had the highest per-capita economic loss due to air pollution, followed by Haryana in 2019.
- **Indoor air pollution:** In term of economic losses attributable to indoor air pollution ranged, Goa had the least loss at \$7.6 million and UP the highest at \$1829.6 million.

INDOOR POLLUTION IS AS DEADLY AS ITS OUTDOOR COUNTERPART

• CONTEXT:

Indoor air pollution is just as lethal as the outdoor variety. Indoor, or household, air pollution caused 64 per cent fewer deaths in the last two decades (2000-2019) in India, according to a report by interdisciplinary journal *Lancet Planetary Health*.

۲	ABOUT:	What is indoor	air	pollution?	Which	air	pollutants	exist

- It refers to the physical, chemical, and biological characteristics of air in the indoor environment within a home, building, or an institution or commercial facility.
- A number of air pollutants have been recognised to exist indoors, including NOx, SO2, ozone (O3), CO, volatile and semi-volatile organic compounds (VOCs), PM, radon and microorganisms.
- Some of these pollutants (NOx, SO2, O3, and PM) are common to both indoor and outdoor environments and some of them may originate from outdoors.
- These air pollutants can be inorganic, organic, biological or even radioactive.

What factors affect indoor air quality?

- Indoor air quality is affected by many factors, including:
 - Type and running conditions of indoor pollution sources
 - **Ventilation conditions:** Air pollutants may accumulate in the indoor environment if the indoor air is not well ventilated, which seriously affects the health of the inhabitants.
 - Indoor activities (cooking with dirty fuel): According to the World Health Organization (WHO), around three billion people, mostly women in the villages of India and in other parts of the world still cook and heat their homes using dirty solid fuels.



indoor?

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WEEK - 5 (DECEMBER, 2020)

• These include waste wood, charcoal, coal, dung and abundantly available crop wastes. These are burnt on open fireplaces, cooking stoves etc.

- This generates a large amount of air pollutants such as
 - sulphur dioxide (SO2
 - nitrous oxides (NOx)
 - carbon monoxide (CO)
 - particulate matter (PM)

Effects of indoor air pollution

- The effect of these air pollutants on humans depends on their toxicity, concentration and exposure time and may vary from person to person.
- Sick building syndrome (SBS): The most common effect is called sick building syndrome (SBS), in which people experience uncomfortable or acute health effects such as irritation of nose, eyes and throat, skin ailments, allergies and so on.
- **Premature deaths:** The WHO fact sheet on household air pollution due to indoor pollutants states that 3.8 million premature deaths occur annually.
- These include stroke, ischaemic heart diseases, chronic obstructive pulmonary diseases and lung cancer, all of which are attributed to exposure to household air pollution.

TSO KAR WETLAND COMPLEX

 CONTEXT: In a latest development, India has added Tso Kar Wetland Complex in Ladakh as its 42nd Ramsar site, which is a second one in the Union Territory (UT) of Ladakh.

• ABOUT:

Ladakh's Tso Kar Wetland Complex

- The Tso Kar Basin is a high-altitude wetland complex.
- Situated in the Changthang region of Ladakh, it consists of two principal waterbodies,
- Startsapuk Tso, a freshwater lake to the south
- Tso Kar itself, a hypersaline lake to the north
- It is called Tso Kar, meaning white lake, because of the white salt efflorescence found on the margins due to the evaporation of highly saline water.
- The Tso Kar Basin is an **A1 Category Important Bird Area (IBA)** as per Bird Life International and a key staging site in the Central Asian Flyway.

What is about the fauna of the region?

- The site is also one of the most important breeding areas of the Black-necked Crane (Grus nigricollis) in India.
- This IBA is also the major breeding area for Great Crested Grebe (Podicepscristatus), Bar-headed Geese (Anserindicus), Ruddy Shelduck (Tadornaferruginea), Brown-headed Gull (Larusbrunnicephalus), Lesser Sand-Plover (Charadriusmongolus) and many other species.

Significance of Wetlands

- Wetlands provide a wide range of important resources and ecosystem services such as food, water, fibre, groundwater recharge, water purification, flood moderation, erosion control and climate regulation.
- They are a major source of water and our main supply of freshwater comes from an array of wetlands which help soak rainfall and recharge groundwater.





• ABOUT:

What is the aim of the Ramsar List?

- A Ramsar site is a wetland site designated to be of international importance under the Ramsar Convention. The **Convention on Wetlands**, or the Ramsar Convention, is an intergovernmental environmental treaty established in 1971 by UNESCO, which came into force in 1975.
- To develop and maintain an international network of wetlands
- To help in conservation of global biological diversity and for sustaining human life
- To maintain ecosystem components, processes and benefits
- Title> Science & Technology (GS-III)

WORLD'S UGLIEST ORCHID

CONTEXT: A newly described species of orchid from Madagascar has been called "the ugliest orchid in the world".

- The leafless orchid, named Gastrodia agnicellus, grows underground in decaying leaf litter for most of its life cycle, and is nourished by fungus.
 - It is one of 156 plants and fungal species named by Kew scientists and their partners around the world in 2020, has been crowned "the ugliest orchid in the world".
 - The 11 mm flowers of this orchid are small, brown and rather ugly.
 - Like most orchids, this species is a perennial plant, meaning it could live for many years, and has a symbiotic relationship with a fungus.
 - While other orchids only depend on their fungus symbiote for food at the start of their lives, *Gastrodia agnicellus* doesn't have any cells for photosynthesis so relies on its fungus for its entire life.
 - **Status**: Although assessed as a **threatened species**, the plants have some protection because they are located in a national park.

Orchids

- Orchids are a family of monocotyledons. They have, like other monocots, a single seedling leaf and their floral parts in threes.
- Orchids are one of the largest families of flowering plants, challenging the daisy
 or sunflower family, the Asteraceae (Compositae), for the title of the largest of
 all families.
- Currently there are known to be 25,000 species of orchids and estimates, based on the current rate at which new species are being discovered and described.
- Orchids are a cosmopolitan family found all the way from within the Arctic Circle to Tierra del Fuego and the islands south of Australia.
- They are absent only from open water and from true deserts.
- The smallest orchid is thought to be **Bulbophyllum minutissimum**.

L&T CONSTRUCTION 3D PRINTS INDIA'S FIRST BUILDING WITH REINFORCEMENT

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• CONTEXT:
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L&T Construction, the construction arm of the \$21 billion technology, engineering & construction conglomerate, Larsen & Toubro, has 3D printed a G+1 (Ground plus one) building with reinforcement for the first time in India.



• ABOUT:

- The 3D printed building has a built up area of 700 sq. feet and is located at L&T Construction's Kanchipuram facility.
- It has been built with a special, in-house developed concrete mix using indigenously available regular construction materials.



- The building was printed with both vertical reinforcement bars and horizontal distributors using welded mesh, that satisfy provisions in the Indian Codes and optimise the cost of construction.
- Barring the horizontal slab members, the entire building structure was 3D printed 'Cast in Situ' at the job site in an 'open to sky' environment within 106 printing hours, using a fully automated 3D printer.
- What is 3D Printing?
- 3D printing is a process, in which the material is printed under computer control to build a 3-dimensional product, typically layer by layer.
- It is predominantly used in manufacturing industries to print rapid prototypes, complex shapes and small batch production using special polymers, metal alloys etc.
- 3D printing is the opposite of subtractive manufacturing which is cutting out / hollowing out a piece of metal or plastic with for instance a milling machine.
- 3D printing with concrete is still largely work in progress across the globe.
- Significance of the new development
- With the country aggressively pursuing the objective of creating 60 million houses under the Housing for All by 2022 programme, this achievement will certainly give a huge fillip to the mass housing segment.
- 3D printing will not only accelerate the pace of construction, but also significantly improve build quality.

NEW STRAIN OF COVID-19 'OUT OF CONTROL

• CONTEXT:

Recently, the new SARS-CoV-2 variant has ben revealed to be the reason behind the rapid surge in Covid-19 cases in South and East England. It is being referred to as VUI (Variant Under Investigation) 202012/01, or the B.1.1.7 lineage.



۲	ABOUT:
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- The new strain spotted in the UK has undergone mutation in the spike portion of the virus.
- **Spikes** are proteins protruding from the virus. They actually bind the virus with the cells of the body and then gain an entry.
- The strain is a derivative of the **D614G mutation**, which appeared independently in multiple locations.
- However, only one lineage of that mutation spread rapidly across the globe, driven by human behaviour, and is now found in nearly all sequences.
- Although there is still no absolute certainty about the mutant COVID-19 strain, three things have emerged from the spread:
- It is rapidly replacing other versions of the coronavirus.
- Parts of the virus have demonstrated mutations.

- Some of these mutations have already been found to increase the ability to infect cells.
- With these three factors, it is believed that the new mutant virus strain can spread easily.

How do mutations occur?

- When the human body develops antibodies against a virus to prevent a disease outbreak, a virus must change its envelope, or outer surface, to avoid being recognized by the antibodies and immune cells.
- Thus, to survive, a virus must change its outer proteins and develop new strains.
- To replicate, viruses use a host cell in an infected individual. When viruses infect such a host cell, they introduce genetic information from their nucleus into the infected cell.
- In this way, the body's cells reproduce millions of copies of the virus.
- However, small copying errors occur in each of these reproductions, and each of these errors also changes or mutates the genetic code of the virus.

How many times has the Sars-CoV-2 virus mutated?

- The virus was first reported in Wuhan and since then, it is said to have mutated many times, most of which have gone unnoticed.
- So far, scientists have noted two distinct set of mutations in the virus that causes Covid-19:
 - the H69/V70 deletion
 - > the D614G

How does the body react to mutations?

- Normally, the human body is able to protect itself against viruses. It produces antibodies that defend against viral attacks and trigger immunity to the pathogen.
- However, if the pathogen has already mutated and the antibodies produced are programmed to an older version of the pathogen, then these antibodies are much less effective.
- That's why humans regularly get the common cold.

SHIGELLA INFECTION

• CONTEXT:

A number of cases of shigella infection have detected in Kozhikode district of Kerala.



What is shigella infection?

• Shigellosis or shigella infection is a contagious intestinal infection.

- **Caused by:** It is caused by a genus of bacteria known as **shigella**.
- The same bacteria is also understood to be the prime reason for the occurrence of diarrhea especially among children in the African and South Asian countries.
- The lethal bacteria enters the body through ingestion and harms the epithelial lining of the colon resulting in severe inflammation and subsequent damage to the cells.
- The bacteria is so lethal that only a minute number of bacteria can cause havoc in a person's body.
- **Transmission:** It gets transmitted from person to person after the bacteria has been ingested by the person accidentally.

What are the symptoms?

- People with shigellosis may start experiencing symptoms within one or two days of the entry of germs in the body.
- The common symptoms are:
 - diarrhea (often bloody and painful)
 - stomach pain
 - o fever
 - nausea
 - vomiting
- There have been cases too where people don't experience any signs of the bacterial infection.

How to prevent the disease?

- Wash hands with soap especially after dealing with a child's diaper and before preparing/ eating food.
- While swimming in pools and lakes, it's advisable not to swallow water.
- Avoid eating contaminated food especially from the street in unhygienic conditions.
- Drinking boiled water is advised.









SUCCESS IS A PRACTICE WE DO!



