



Week - 2 MARCH, 2019

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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-2 (MARCH, 2019)

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SECTION: A (MAINS)

CURRENT AFFAIRS

DNA FORENSICS PROVIDING GREATER CONVICTIONS IN WILDLIFE CRIME

CONTEXT

- In 2016, some 16 poachers were jailed for killing lions in Gir National Park in Gujarat, home to the only wild population of Asiatic Lions.
- It was the first case of wildlife crime where cutting-edge forensics was deployed. Criminal investigation department in Ahmedabad cracked the case using DNA fingerprinting and narcoanalysis.
- With investigating agencies facing increased challenges of collecting evidence to ensure convictions in wildlife crimes, DNA forensics are providing a major headway.
- 20 Indian cities witnessed 80% of building fire deaths.

• BACKGROUND:

- In November 2017, 23-year-old youth from North 24 Parganas in West Bengal killed a wild animal and posted photographs on a social media platform.
- State Forest Department officials tracked down the man but by then the meat were half cooked and the accused denied all allegations.
- A forensic DNA analysis showed that the meat was that of the Asian Palm Civet (Paradoxurus Hermaphroditus), a Schedule II species protected under the Wildlife (Protection) Act, 1972.
- The analysis helped Forest Department officials press charges against the youth and in further prosecution of the case.
- Zoological Survey of India recently published a report, titled "Ascertaining species of origin from confiscated meat using DNA forensics and Wildlife forensics in nullifying the false accusation".

• ANALYSIS:

Status of Wildlife crimes and rate of conviction:

- Illegal wildlife crime is not confined to a region.
- This is an organized crime where several people are involved — from local hunters to the end buyers. This calls for an urgent need to employ techniques of DNA forensics to improve conviction rate which at present remains very low.
- Morphology-based identification protocol: In most cases the samples ZSI receive from investigating agencies in cases of wildlife crime are disfigured and have lost characters of morphological identity, which poses a major challenge.

Attempt is to create a 'database':

• Efforts are not confined up to species identification but are also involved in creating a reference

database to assign the seizures to the source of origin, identifying sexes from seizures to understand poaching/ hunting pressure on the species which might impact the species demography in coming year.

- ZSI is one of four organizations authorized by the Government of India to submit species identification reports from the confiscated materials.
- DNA analysis at the ZSI: It can identify samples at the molecular level using DNA forensics.
- Universal Primer Technology (UPT): Developed by the Centre for Cellular and Molecular Biology (CCMB), Hyderabad, is essentially a DNA barcoding method used for accurate and quick identification of species from tiny biological samples.
- How UPT works: UPT is based on the concept that a genome segment can serve as a 'molecular signature'. Variations in its DNA sequence can be used to identify any animal, bird or fish from a biological sample.
- The technology would provide scientific evidence admissible in a court of law, in cases related to poaching, bush meat hunting, and illegal trade in wildlife products.
- It will also help food safety officials detect adulteration of animal meat in food products. So, if traders or hoteliers have substituted mutton with cheaper beef, it will show up in the test results.

What is DNA forensics?

- DNA forensics is a branch of forensic science that focuses on the use of genetic material in criminal investigation to answer questions pertaining to legal situations, including criminal and civil cases.
- Involvement of locals in poaching:
 - A tribe called Baheliyas or Pardhis is notorious for its involvement in poaching (or helping a poacher).
 - Bloodstains found on their clothes and the





scrapings of the underside of their fingernails were forensically validated in the Gir lion killing incident and the forensics experts found that the blood on the clothes and in the scraping was of a lion.

• This scientific evidence helped the prosecution to successfully convict the tribe members.

How to make convictions effective:

- Convictions can come in less than two years after the crime. This could be very quick for wildlife cases. Till now wildlife forensics have been limited to identifying an animal by parts. Forensics can easily be used in wildlife investigation, but the forest department does not have the training to do a proper investigation. Coordination among forest officials, police and customs is also needed.
- What is required is a national database on poachers and traders, and exchange of information between states and countries.

UNEP has been recognizing Wildlife Crime Control Bureau (WCCB) of India for its excellent work in combating transboundary environmental crimes.

 WCCB has been conferred award for 2018 in 'Innovation' category for adopting techniques that have dramatically increased enforcement of transboundary environmental crimes in India.

International conventions related to Wild Life conservation of which India is a party:

- Convention on International Trade in Endangered Species of Fauna and Flora (CITES): In order to regulate international trade in endangered species of Wild Life, the CITES was signed in March 1973. The Government of India signed the Convention in July 1976, which was ratified in October 1976. The Director, Wild Life Preservation has been designated as the CITES Management Authority for India.
- World Heritage Convention: India is a member of World Heritage Convention responsible for listing

Practice Question

of World Heritage Sites, which include both cultural and natural sites. The World Heritage Convention is a Convention under the aegis of UNESCO. Wild Life wing of the Ministry of Environment and Forests is associated with the conservation of the Natural World Heritage sites. Currently, six natural World Heritage Sites have been recognized by UNESCO in India, viz., Nanda Devi National Park, Kaziranga National Park, Manas National Park, Keoladeo National Park, Sundarbans National Park. Apart from these, the Valley of Flowers National Park has also been included in the list of World Heritage Sites as an extension of Nanda Devi National Park.

- Convention on the Conservation of Migratory Species of Wild Animals (CMS): Or Bonn Convention aims to conserve migratory species throughout their range. The Convention came into force in 1979. India is a signatory to the convention since 1983.
- International Whaling Commission: The purpose of the Convention is to provide for conservation of whale stocks. The main duty of the International Whaling Commission is to keep under review and revise as necessary the measures laid down in the schedule to the Convention which governs the conduct of whaling throughout the world. These measures, among other things, provide complete protection of certain species, designate specified areas as whale sanctuaries, limit the number of whales which may be taken, prescribe open and closed seasons and designate areas for whaling; prohibit the capture of suckling calves and female whales accompanied by calves. India has been a member of the International Whaling Commission since 1981.
- Convention on Biological Diversity (CBD): It entered into force on 29 December 1993. It has 3 main objectives: The conservation of biological diversity; the sustainable use of the components of biological diversity; the fair and equitable sharing of the benefits arising out of the utilization of genetic resources.
- With investigating agencies facing increased challenges of collecting evidence to ensure convictions in wildlife crimes, DNA forensics are providing a major headway. Discuss.



PHOTO-VOLTAIC INDUSTRY AND CPSU SCHEME

CONTEXT

- Cabinet Committee on Economic Affairs (CCEA) approved Rs 8,580 crore for solar power projects developed under the second phase of the Central Public Sector Undertaking (CPSU) scheme. This is expected to add 12 gigawatt (GW) capacity to the power grid between 2019-20 and 2022-23.
- With this move, the long-standing 'import versus manufacturing' debate that has dogged India's solar sector has resurfaced

• ABOUT

- CCEA has recently approved an extension to the existing 1,000 megawatts (MW) central public sector undertaking (CPSU) scheme under the National Solar Mission (NSM), taking the cumulative capacity approved under it to 12 gigawatt (GW).
- The new funds allocated for the CPSU scheme, is a welcome relief for existing manufacturers, given the slowdown that has hit the sector.

• BACKGROUND

- The domestic photovoltaic (PV) manufacturing sector has struggled to capitalize on the solar boom — 88 per cent of solar modules are still imported, with China supplying the lion's share.
- Buoyed by oversupply at home along with state support, Chinese manufacturers are able to supply solar panels significantly cheaper, contributing to falling solar power tariffs in India's competitive reverse bidding auctions.
- After the Indian Solar Manufacturers Association (ISMA) sought an anti-dumping duty on modules from China, Malaysia and Taiwan, a safeguard duty of 25 per cent was levied. It is to be progressively lowered to 15 per cent over two years.
- There is another trouble brewing over the Domestic Content Requirement (DCR). DCR lays down that a certain percentage of modules will have to be made in India — in the National Solar Mission and state auctions.
- DCR ran into trouble with World Trade Organization (WTO) regulations, and was scrapped in 2017.

Types of technology utilized in the solar panels

Monocrystalline:

- This is the oldest and most developed technology.
- These are created from a single continuous crystal structure.
- A Monocrystalline panel can be identified from the solar cells which all appear as a single flat color.

Polycrystalline:

- Polycrystalline also start as a silicon crystal 'seed' placed in a vat of molten silicon. However, rather than draw the silicon crystal seed up as with Monocrystalline the vat of silicon is simply allowed to cool.
- This is what forms the distinctive edges and grains in the solar cell. Polycrystalline cells were previously thought to be inferior to Monocrystalline because they were slightly less efficient.
- This has become the dominant technology in the residential solar panels market because of the cheaper method and slightly lower efficiencies

Thin Film:

- Comparatively new technology. A thin film panel can be identified as having a solid black appearance.
- They may or may not have a frame, if the panel has no frame it is a thin film pane. They have the lowest efficiency.

Other related terms

Photovoltaic:

- It is the process of converting sunlight directly into electricity. A photovoltaic system uses solar panels to capture sunlight's photons.
- These solar panels each have many solar cells made up of layers of different materials. An anti-reflective coating on top helps the cell capture as much light as possible.
- Beneath that is a semiconductor (usually silicone) sandwiched between a negative conductor on top and a positive conductor on bottom.
- Once the photons are captured by the solar cell, they begin releasing the outer electrons of atoms within the semiconductor.
- The negative and positive conductors create a pathway for the electrons and an electric current is created. This electric current is sent to wires that capture the DC electricity.
- These wires lead to a solar inverter, which then transforms it into the AC electricity used in homes.





Viability gap funding:

- Means a grant one-time or deferred, provided to support infrastructure projects that are economically justified but fall short of financial viability.
- The lack of financial viability usually arises from long gestation periods and the inability to increase user charges to commercial levels.
- Infrastructure projects also involve externalities that are not adequately captured in direct financial returns to the project sponsor.
- Through the provision of a catalytic grant assistance of the capital costs, several projects may become bankable and help mobilize private investment in infrastructure.

Safeguard duty:

- The duty, typically imposed during import surges, is meant to protect domestic manufacturers.
- Jawaharlal Nehru National Solar Mission/ National Solar Mission (NSM):
- It is one of the eight key National Mission's which comprise India's National Action Plan on Climate Change (NAPCC), launched in June 2008.
- GoI approved National Solar Mission in January, 2010

• ANALYSIS:

- The CCEA move comes at a time when domestic manufacturers are finding it difficult to sustain themselves because of a flood of cheap import.
- So far, ₹24,700 crore of photovoltaic cells and modules were imported in fiscal 2018, which marked a 15% year-on-year growth (imported modules continue to find favor).

Reasons for introducing short-term measures to enable Solar plan:

- Domestic module makers were finding it tough to sustain in mass deployment though, they have found a way to overcome challenges by catering to niche segments (off-grid, rooftop) and forwardintegrating into developing rooftop projects.
- Solar cell makers are facing weak profitability and more often are operating at loss.
- There has been dearth of upstream manufacturing capabilities (ingots, wafers, cells).

Practice Question

Key hurdles:

- The Solar industry is a stressed sector. Domestic capacity for cells would be around 3GW by this fiscalend, while module capacity will be about 8GW.
- Solar developers continue to prefer imported modules despite the safeguard duty. Large-scale investments are seen as risky with only the CPSU scheme as the guaranteed demand source.
- Issue of cell technology: Globally, the solar industry is moving towards mono-crystalline and passivated emitter and rear cell (Perc), technology to improve plant load factors, but a significant chunk of the 3GW cell lines installed in India still uses older technology.
- Moreover, when global manufacturers in the solar cell/module space spend a great amount on research and development to improve cell efficiencies, Indian counterparts remain followers rather than becoming leaders.
- CPSUs haven't been as enthusiastic, and enforcement remains weak.

Structural deficiency factors:

- Technologically obsolete production lines.
- CPSU scheme being the sole source of demand.
- Weak forecast of fresh capital investments

Structural support required as outlined by the Ministry of Renewable Energy:

- Interest-cost subvention
- Provision for low-cost land and power
- Central financial assistance for setting up and upgrading domestic capacities.
- Backward integration enablers
- A fund to upgrade technology

Way forward

- Facilitating enabling factors as outlined by the Ministry of renewable energy would help in improving the competitiveness of domestic manufacturers compared with global giants, which have large installed manufacturing bases, a presence across the value chain and are more cost-efficient.
- This has to be complemented by quicker policy actions and heavy investment at research and development stage.
- "The current slowdown in the solar energy generation sector can be partly attributed to the protectionist measures such as Domestic Content Requirement. India doesn't have domestic Research and development (R&D), technology or even testing labs for certification of modules and inverters". Analyze this statement and critically evaluate the effectiveness of CPSU scheme extension.

SEPARATE DEPARTMENT FOR FISHERIES IN THE UNION GOVERNMENT

CONTEXT

• India is the world's second-largest fish producer with exports worth more than Rs 47,000 crore. Fisheries are the country's single-largest agriculture export, with a growth rate of 6 to 10 per cent in the past five years.

• BACKGROUND

- Fisheries are the primary source of livelihood for several communities. A concentrated effort by an independent department could help the government achieve its objective of doubling farmers' income, provided its policies address the challenge of sustainability.
 - The fisheries and aquaculture production contributes around 1% to India's Gross Domestic Product (GDP) and over 5% to the agricultural GDP.
 - According to Food and Agriculture Organization (FAO) report "The State of World Fisheries and Aquaculture 2018" apparent per capita fish consumption in India average (2013-15), lies in a range of 5 to 10 Kg.

Government efforts in the sector

- Blue Revolution Scheme: In view of the potential fisheries resources in the aquaculture, inland fisheries, coastal & marine fisheries and substantial scope of export augmentation, The Fisheries division of Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture and Farmers Welfare, Government of India is implementing various developmental schemes under the umbrella of "Blue Revolution Scheme" for overall development of fisheries sector.
- Fisheries and Aquaculture Infrastructure Development Fund (FIDF): The FIDF aims to achieve a sustainable growth of 8 % to 9 % in a move to augment fish production to the level of about 20 million tonnes by 2022-23. It will create employment opportunities for over 9.40 lakh fishermen and entrepreneurs in fishing and allied activities.
- National Fisheries Development Board (NFDB): It is implementing various schemes and components since its inception in 2006 for development of Fisheries in the country. Followings are its main objectives:
 - To provide focused attention to fisheries and aquaculture (production, processing, storage, transport and marketing)
 - To achieve sustainable management and conservation of natural aquatic resources
 - To apply modern tools of research and

development including biotechnology for optimizing production and productivity from fisheries

- To enhance the contribution of fish towards food and nutritional security.
- To train and empower women in the fisheries sector and also generate substantial employment.
- From 2016-17 onwards, the NFDB scheme has been subsumed in umbrella scheme of the Centrally Sponsored Scheme on "Blue Revolution: Integrated Development and Management of Fisheries" and NFDB has become one of the major component of the said restructured scheme.

• ANALYSIS:

- With diverse resources ranging from deep seas to lakes in the mountains and more than 10% of the global biodiversity in terms of fish and shellfish species, the country has shown continuous and sustained increments in fish production since independence.
- The total fish production of 10.07 million metric tonnes presently has nearly 65% contribution from the inland sector and nearly the same from culture fisheries
- Fish and fish products have presently emerged as the largest group in agricultural exports of India, with 10.51 lakh tonnes in terms of quantity and Rs.33,442 crores in value.
- This accounts for around 10% of the total exports of the country and nearly 20% of the agricultural exports. More than 50 different types of fish and shellfish products are exported to 75 countries around the world.

World fisheries sector faces the challenge of sustainability:

- State of World Fisheries and Aquaculture reports note that nearly 90 per cent of the global marine fish stocks have either been fully-exploited or over-fished or depleted to an extent that recovery may not be biologically possible.
- To meet the demand for animal protein, global fish production should touch 196 million tonnes by 2025 (currently at 171 million tonnes)
- But India has the potential to bridge this gap





provided it concentrates on aquaculture — fish farming:

- India has a comparative advantage.
- It has a marine fisher population of 3.5 million; 10.5 million people are engaged in inland fishery and fish farming.
- That being said, the productivity in both sectors is low — in terms of per fisher, per boat and per farm. In Norway, a fisherman/farmer catches/produces 250 kg per day while the Indian average is four to five kg

But, India had a better rate of convergence as compared to the rest of the world.

- Blue Revolution scheme seeks to make fishery and aquaculture a viable vocation.
- Blue Revolution has two approaches:
 - Sustainable capture fishery to harness marine and inland water resources
 - Expanding the horizon of fish farming through increased coverage, enhanced productivity, species diversification and better market returns

Current challenges:

- Marine capture fishery comprises largely of small fishermen who operate traditional boats, this limits scaling up of productivity. Also, these vessels cannot operate beyond near shore waters.
- This means that while the near-shore coastal waters are highly overfished, the high value fish stock proliferates in the deep seas.

Response of the Government:

- New National Policy on Marine Fisheries: It is expected to guide the development of marine fisheries sector for the next 10 years.
- Fish production in India is estimated at 11.4 million tonnes, out of which 68% is registered from inland fisheries sector and the remaining 32% from marine sector.
- It is expected that the indigenous fish requirement by 2020 would be 15 million tonnes as against the

Practice Question

production of 11.4 million tonnes. This gap of 3.62 million tonnes is expected to be made up by Inland Aquaculture and also through mariculture.

- Estimates by scientists that the fishery resources of near-shore waters within the 200 meters depth zone are either optimally utilized or sometimes over-exploited, which is a matter of serious concerns for the livelihood of traditional fishermen.
- The government has decided to promote 'marine culture fisheries' and included the sub-components of 'Mariculture' under 'Blue Revolution' Scheme.
- Open sea cage farming is one of the eco-friendly farming activities under mariculture which is being practiced in open sea where wave action is less.
- The fishes that are being cultured in cages are high value fishes; hence there is a huge export demand for cage cultured fishes.

What the new policy and action of the government envisages:

- Intensive fish farming through increased stocking of seed.
- Better feed quality and diversification of species.
- Re-circulatory aquaculture system to realize the goal of more crop per drop.
- Investment in hatcheries to meet the everincreasing demand for good quality fish seed.
- Cage culture in reservoirs and other open water bodies has been introduced: This new practice gives freedom to fishermen from the risk of traversing dangerous rivers and restricted reservoirs.

• WAY FORWARD:

• The new department has been envisioned that it will give undivided attention to creating and strengthening infrastructure facilities in marine and inland fisheries. This is intended to give a boost to aquaculture and post-harvest activities. The country has been forecasted to be producing more than 15 million tonnes fish by the end of 2019. This pathway has been visualized as a way to create a model of sustainable fish production.

 "In order to meet the ever-increasing demand for animal protein, global fish production should touch 196 million tonnes by 2025. Taking into account the current depletion rate of marine fish stocks, that seems next to impossible. However, India has the potential to bridge this gap provided it concentrates on aquaculture". Analyze this statement and critically evaluate the potential effectiveness of the separate department for fisheries in the Union government.



SKILLING WORKERS IS A PUBLIC GOOD, NEEDS BIGGER THRUST

CONTEXT

• Just 2.2% of those between 15 to 59 years age group received formal vocational training while 8.6% in the same age-group received non-formal vocational training, reveals a government survey. This means around 90% of the people did not receive any kind of vocational training.

• ABOUT:

- The latest NSSO survey findings also reflect that passing down of hereditary skills, self-learning and 'on-the-job' learning continue to generate more skilled workforce than country's formal vocational training establishments.
- The survey found 'driving and motor mechanic work' was the most preferred kind of training among rural males (22.3%) while 'computer trades' was the top choice for urban males (26.3%).
- Among rural females, 'textile related work' was the most popular (32.2%) while urban females chose 'computer trades' (30.4%).

What is public good?

- Public good is something which is both non-rival and non-excludable. The former means that if one person is consuming it, it does not deplete the quantity available to another. The latter means that if one person is allowed to consume it, it is usually not possible to exclude others.
- Because of the non-rival nature of a public good, it can be "infinitely consumed", which means that ideally, one should just pay a price close to zero. Therefore free market economic model would not support production of such goods. This will be done by the government using compulsory taxation and enforcing coercive laws.

• ANALYSIS

Causes of lack of skills:

• **Employers:** They under-invest in the training. That's because once a worker gets adequate training, his market value increases tremendously and he can be poached by another competing employer who did not have to "invest" in that worker's skilling.

As a result, collectively, the entire industry ends up under-investing in skilling, leading to an aggregate skills shortage and low productivity.

• Workers: They cannot themselves acquire skills

through private skilling academies, because most workers cannot afford the fees that such private academies would charge.

- Banks: If the workers take up loan to pay for skilling academies, such loans would have no collateral and can lead to large defaults and nonperforming assets for banks.
- Government:
 - The setting up of the National Skill Development Corporation (NSDC) in 2008, or the launching of the Pradhan Mantri Kaushal Vikas Yojana is the government effort in the direction. But the policy is still far from achieving its intended result.
 - Working in Public-Private Partnership model, the NSDC looks at imparting skill and vocational development training through the various Sector Skill Councils (SSCs). Their entire focus seems to have been on the implementation of the PMKVY without regard to whether it will really meet the exact skill needs of the sectoral industry or turn out skilled manpower of global standards or persons that would get placed after the training.

Improvements after skilling of workers:

- Skill development is an important driver to address poverty reduction by improving employability, productivity and helping sustainable enterprise development and inclusive growth. It facilitates a cycle of high productivity, increased employment opportunities, income growth and development.
- The success of the major programmes of the current Government viz; Make in India, Digital India, Smart City, Namami Gange, Swachh Bharat depends on the success of the Skill India Mission in skilling and reskilling 460 million by 2022.

Vision behind skilling the workers:

 Countries that have succeeded in linking skill development to gain in productivity, employment and development have targeted skill development policy towards three main objectives:



 Matching supply to current demand for skills: Relevance and quality of training matching the provision of skills with labour market demand requires labour market information systems to generate, analyse and disseminate reliable sectoral and occupational information, and institutions that connect employers with training providers.

- Helping workers and enterprises adjust to change: Learning new skills, upgrading existing ones and lifelong learning can help workers to maintain their employability and enterprises to adapt and remain competitive.
- Building and sustaining competencies for future labour market needs: A longterm perspective, anticipating the skills will be needed in future and engendering a virtuous circle in which more and better education and training fuels innovation, investment, technological change, economic diversification and competitiveness, and thus job growth.

Way Forward:

- Present scenario: Human capital formation is suboptimal in the aggregate, taking the nation downwards in the growth trajectory.
- Future awaiting: When the average level of education and skills in society increases, it results in better quality of jobs, incomes and standard of living for all, not just the skilled persons themselves.

Practice Question

- Government efforts: They can use technology to automate, improve and scale training and certification approach of skill-based training. By creating better linkages between the many stakeholders in the process and establishing key deliverables and a clear chain of accountability would help make such training programs more effective.
- Improving the Education level of the Labour Force: The universalization of elementary education has improved the enrolment to the upper primary level. However, there is sharp dropout after that. The school dropouts needs to be provided the second chance to acquire basic numeracy and literacy skills to move them out of low paid unskilled work in the informal economy.
- Strengthening Private sector participation: Given that target to be achieved is huge and resources with the government are limited, there is urgent need to incentivise industry to be to either set up training institutions in PPP mode in industry clusters to facilitate availability of trained manpower for big and MSME units or to adopt existing government ITIs and Polytechnics.
- Proactiveness by private sector: The private industry chambers should come together and agree to train and skill their own workers, and also have a non-poaching agreement. This will ensure the retaining of skilled workers who have value added to them compared to as they joined.
- According to NSSO's 68th report, only 4.7% of the workforce had formal skill training. Discuss the causes for low skill rate in India and government's efforts undertaken to improve it. How can the nation pace on track of development by skilling workers?



ON BUILDING PEACE IN MAOIST-TORN CENTRAL INDIA

CONTEXT

• Around 300 tribal people, along with rights activists, took part in a week-long bicycle rally, calling for peace in the central Indian state of Chhattisgarh, which has been mired with a decades-long violent conflict between Maoist rebels and security forces. The conflict has claimed more than 12,000 lives in the past two decades.

• ABOUT:

- The tribal people started their procession from Chhattisgarh's rebel-affected Bastar region on February 22, urging the newly elected Congress party government in the state to rehabilitate numerous villagers who have fled from their homes fearing violence from both security forces and Maoists. They also demanded that the government release innocent tribal people languishing in state prisons on charges of being "Naxals," another name for rural Maoist guerrillas active in the region.
- If the government accepts these demands, which it is obliged to under various domestic and international laws concerning internally displaced persons (IDPs), it can help vulnerable tribal people trust the government – which would facilitate a conducive atmosphere for dialogue between the state and locals who have turned against the government.
- The Maoist rebels in the state have been fighting a guerrilla war for more than four decades now, aiming to overthrow elected government and set up communist rule. They accuse the government of forcefully controlling tribal land and resources, and not giving the tribal communities the autonomy granted in the Indian Constitution. But caught between the state and the Maoists, tribal people are paying the price.
- The tribal people who participated in the rally were among the thousands of people who had been rendered homeless during the years when SalwaJudum, a counter-insurgency militia founded in 2005 and supported by the state government then, was fighting the Maoists. The militias were later accused of committing serious atrocities on innocent villagers deemed to be Maoist sympathizers.

● ISSUE

 SalwaJudum sought to conscript villagers, moved entire villages to what were essentially detention camps so as to cut the support base for Maoists." Those who refused to leave were forced to move in by the militias from the SalwaJudum campaign, who allegedly used coercion, threats, intimidation and violence.

- Just before SalwaJudum was launched, the state government had signed a memorandum of understanding with Tata Group, one of India's oldest private businesses, for setting up a mega steel plant in the Bastar region, which required the acquisition of tribal people's land.
- Some suspect that in the name of combating Maoists, SalwaJudum had displaced tens of thousands of villagers to help the state government implement its plans for economic development. SalwaJudum was disbanded in 2011 after the Supreme Court declared it illegal.
- Many of these IDPs are living in the adjoining states of Andhra Pradesh and Telangana. Some of them want to return to their villages, but the others, fearing more violence, are requesting the government to rehabilitate them in other parts of the state.
- Apart from the atrocities by SalwaJudum, there are innumerable cases of illegal detention under the Chhattisgarh Special Public Security Act of 2005, custodial torture and staged shootouts by the state police. Some of the jails in the tribal areas are overcrowded because of an excessive number of fake cases filed by the police. On an average, 96 percent of the tribal people arrested have been acquitted by the court, the research adds.
- In 2017, Deputy Jailer of Raipur Central Jail, Varsha Dongre, was suspended by the state authorities after a post she made on Facebook, which she deleted later, had accused the state's security personnel of widespread torture and sexual abuse of minor tribal girls inside prisons. She had also alleged that entire villages had been burnt and women raped to push the locals out of their land in forests rich in natural mineral resources so that industrialists could invest.
- The state government has assured the locals on several occasions that it will release the villagers imprisoned on fake charges, but hasn't done so yet.
- In 2012, a standing committee headed by a former chief secretary, NirmalaBuch, was set up by the government of the adjoining state of Madhya Pradesh to review pending cases of prisoners



following an agreement with Maoists for the release of Alex Paul Menon – the Magistrate of Maoist-affected Sukma district in Chhattisgarh who had been abducted by the rebels.

- More than six years later, the government has not disclosed if it has released any prisoner since the committee's formation. Locals believe they have been betrayed by the government.
- Aggravated by the government's high-handedness, and to save their land, forest, and dignity, many tribal people have picked up guns and joined the Maoist movement. Maoists came to Chhattisgarh's forests nearly four decades ago seeking refuge after the Indian government cracked down on their long-time fight for a revolution in the adjoining states, including the southern Andhra Pradesh state and East Indian state of West Bengal.
- Although they constitute most of the fighting force in the Maoist insurgency, there is no tribal presence in the movement's leadership.
- The Panchayats (Extension to Scheduled Areas) Act of 1996 (PESA) and the Forest Rights Act of 2006 can impact the tribal communities favourably by ensuring the rights that facilitate self-governance and giving them access to their resources. However, these laws are poorly implemented. More than 20 years since the PESA was passed in the Indian

parliament, rules for its enforcement are yet to be framed in the state.

• WAY FORWARD:

- While the scattered Maoist movement is waning with no young leadership being developed, there is a very real danger of a gang war breaking out within the movement once the old leaders, who are keeping the factions together, die. And that could throw the region into even more chaos. Such a situation makes steps like the bicycle rally a necessity.
- The rally, after concluding in the capital city of Raipur, was followed by the second Bastar Dialogue, a two-day event that began on March 1, where several activists and tribal leaders from Maoist-affected adjoining states assembled to discuss the roadmap towards peace in the entire conflict zone – which comprises parts of Jharkhand, Andhra Pradesh, Telangana, Maharashtra, and Orissa states among others. They also discussed ways to establish self-governance for tribal people to bring the rebels back into the mainstream.
- The significance of the efforts for peace being made by the tribal people and activists is yet to dawn on Indian media, which have largely ignored the event in the same way as the country's politicians ignore concerns of the tribal people.

SECTION: B (PRELIMS)

CURRENT AFFAIRS

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iPRISM

• CONTEXT	• The Cell for IPR Promotion and Management (CIPAM), Department for Promotion of Industry and Internal Trade, in collaboration with ASSOCHAM and ERICSSON India, has launched the second edition of 'IPrism'.
	• iPrism is an Intellectual Property (IP) competition for students of schools, polytechnic institutes, colleges and universities
• ABOUT	• IPrism is an Intellectual Property (IP) competition for students of schools, polytechnic institutes, colleges and universities
	• The programme aims to foster a culture of innovation and creativity in the younger generation.
	• It provides a national platform to young creators an opportunity to see their creations recognized on a national platform.
	• This year, entries are invited on "IP in Daily Life" in two categories – film making and comic book making.
	Cell for IPR Promotion and Management (CIPAM):
	• It is a professional body under the aegis of Department for Promotion of Industry and Internal Trade (DPIIT) which ensures focused action on issues related to IPRs and addresses the 7 identified objectives of the policy.
	• It assists in simplifying and streamlining of IP processes, apart from undertaking steps for furthering IPR awareness, commercialization and enforcement.
	Functions:
	• Simplifying and streamlining of IP processes by formulating and implementing a focused strategy for each policy objective.
	• Coordination with State level agencies and Ministries/ Departments of the Government of India, industry bodies as well as international agencies; IP cells to be set up.
	IPR awareness campaign across the country in schools, colleges/universities.
	• Training and sensitization porgrammes for enforcement agencies and Judiciary; coordination for effective enforcement of IPR rights.
	• Study and facilitate implementation of best practices for promotion and commercialization of IP within the country.
	ASSOCHAM
	ASSOCHAM initiated its endeavour of value creation for Indian industry in 1920.
	• Having in its fold more than 300 Chambers and Trade Associations, and serving more than 4 lakh members from all over India.
	• It has witnessed upswings as well as upheavals of Indian Economy, and contributed significantly by playing a catalytic role in shaping up the Trade, Commerce and Industrial environment of the country.
	• It has emerged as the fountainhead of Knowledge for Indian industry, which is all set to redefine the dynamics of growth and development in the technology driven cyber age of 'Knowledge Based Economy'.
	• It derives its strength from its Promoter Chambers and other Industry/Regional Chambers/Associations spread all over the country.
	Ericsson
	• It is a global leader in delivering ICT solutions. In fact, 40% of the world's mobile traffic is carried over Ericsson networks.

• Ericsson has customers in over 180 countries and comprehensive industry solutions ranging from Cloud services and Mobile Broadband to Network Design and Optimization

INDIA 25th MEMBER OF IEA BIOENERGY TCP

۲	CONTEXT •	Ministry of Petroleum & Natural Gas, Government of India joined the International Energy Agency's Technology Collaboration Programme on Bioenergy.
•	ABOUT •	International Energy Agency's Technology Collaboration Programme on Bioenergy (IEA Bioenergy TCP) is an international platform for co-operation among countries with the aim of improving cooperation and information exchange between countries that have national programmes in bioenergy research, development and deployment.
	٠	IEA Bioenergy TCP works under the framework of International Energy Agency (IEA) to which India has "Association" status since 30th March, 2017.
	•	The primary goal of joining is to facilitate the market introduction of advanced biofuels with an aim to bring down emissions and reduce crude imports. It also provides a platform for bioenergy demonstration, and policy analysis with a focus on overcoming the environmental, institutional, technological, social, 'and market barriers to the near- and long-term deployment of bioenergy technologies.
	•	The R&D work in IEA Bioenergy TCP is carried out carried out within well-defined 3-years programmes called "Tasks". Each year the progress of the Tasks is evaluated and scrutinized and each 3 years the content of the Tasks is reformulated and new Tasks can be initiated.
۲	SIGNIFICANCE •	This will help in information exchange about best practices, network of researchers and linking research with practical implementation.
	•	The duplication of efforts will be avoided and will help in share costs and technical resources.
	•	In addition, India can participate in other related Tasks focussing on biogas, solid waste management, biorefining etc. which could be participated by relevant Ministries/ Departments/ Organizations of the Country.

STATEMENT OF INTENT BETWEEN ATAL INNOVATION MISSION AND ADOBE

• CONTEXT	• Recently, NITI Aayog's Atal Innovation Mission (AIM) and Adobe signed a Statement of Intent (SOI) to collectively develop creative skills and spread digital literacy across all Atal Tinkering Labs in India.
• ABOUT	More on news
	Adobe will adopt 100 schools under Atal Tinkering Labs (ATL) initiative.
	 It will be implementing its Digital Disha Program in ATLs, under which free licenses of Adobe Spark premium shall be offered to ATLs.
	Atal Innovation Mission
	 It is a flagship initiative set up by the NITI Aayog to promote innovation and entrepreneurship across the country.





- It is envisaged as an umbrella innovation organization that would play an instrumental role in alignment of innovation policies between central, state and sectoral innovation schemes.
- Long term goals of AIM include establishment and promotion of Small Business Innovation Research and Development at a national scale.
- Atal Tinkering Labs- to promote creative, and innovative mind set in schools
- AIM is setting up state of the art ATL in schools across all districts in India.
- These ATLs are dedicated innovation workspaces of 1200-1500 square feet where do-it-yourself (DIY) kits on latest technologies like 3D Printers, Robotics, Internet of Things (IOT), Miniaturized electronics are installed using a grant of Rs 20 Lakhs from the government so that students from Grade VI to Grade XII can tinker with these technologies and learn to create innovative solutions using these technologies.
- The vision is to have every school have access to at least one or more Atal Tinkering Labs in each district of the country, as well as to scale the same up with the help of state education ministries across the length and breadth of the country.
- Also Government / Govt Aided schools, and Girls schools, North East and Hilly District schools get a special preference in the consideration of ATL selections.
- Atal Incubators (AIC) promoting entrepreneurship in universities and industry
- At the university, NGO, SME and Corporate industry levels, AIM is setting up world-class Atal Incubators that would trigger and enable successful growth of sustainable startups in every sector /state of the country
- It is aimed at providing a grant of up to Rs 10 Crores to successful applicants for setting up greenfield incubators or scaling up existing ones.
- Women led incubators and entrepreneurial startups are strongly encouraged by AIM.

KANYASHREE PRAKALPA

• CONTEXT	• Stipends given under Kanyashree Prakalpa scheme of West Bengal government, are no shield against trafficking.
	• As per NCRB data, West Bengal reports the highest number of trafficking cases. Data for 2016 shows that of the 8,132 cases in the country, 3,579 cases (around 44%) were from West Bengal.
• ABOUT	 Kanyashree is an overarching scheme apart from several other schemes aimed at combating trafficking.
	 It has been designed by Department of Women Development and Social Welfare, Government of West Bengal (DWD&SW).
	 Kanyashree Prakalpa - a conditional cash transfer scheme seeks to improve the status and wellbeing of girls, specifically those from socio-economically disadvantaged families by :
	 Incentivizing them to continue in education for a longer period of time, and complete secondary or higher secondary education, or equivalent in technical or vocational steams, thereby giving them a better footing in both the economic and social spheres.
	 Disincentivising marriage till at least the age of 18, the legal age of marriage, thereby reducing the risks of early pregnancies, associated risks of maternal and child mortality, and other debilitating health conditions, including those of malnutrition.
	 It was also decided that the Scheme should confer more than just monetary support; it should be a means of financial inclusion and a tool of empowerment for adolescent



girls. The schemes benefits are therefore paid directly to bank accounts in the girl's names, leaving the decision of utilization of the money in their hands.

CURRENT AFFAIRS

• To reinforce the positive impact of increased education and delayed marriages, the scheme also works to enhance the social power and self-esteem of girls through a targeted behavior change communication strategy. The communication strategy not only builds awareness of the scheme, but includes adolescent-friendly approaches like events, competitions and Kanyashree clubs, and the endorsement of strong women figures as role models to promote social and psychological empowerment.

Components of the Scheme:

- Annual Scholarship of Rs. 500 for unmarried girls aged 13-18 years enrolled in classes VIII-XII in government recognized regular or equivalent open school or equivalent vocational/technical training course.
- One time Grant of Rs. 25,000 for girls turned 18 at the time of application, enrolled in government recognized regular or open school/college or pursuing vocational/technical training or sports activity or is an inmate of Home registered under J.J. Act 2000

Target Beneficiaries

- All girl children within the age of 13 to 19 years
- Girls regularly attending institutions for education or vocational/sports training
- Girls of Child Care Institutes registered under J.J. Act within the age of 18-19 years
- For the one-time grant, girls who are completing 18 years on or after 1st April 2013
- Approximately 18 Lakhs girl students for annual scholarship each year
- Approximately 3.5 Lakhs girls for one time grant each year

SCHEME FOR HIGHER EDUCATION YOUTH IN APPRENTICESHIP AND SKILLS (SHREYAS

• CONTEXT •	Union HRD Minister launches the Scheme for Higher Education Youth in Apprenticeship and Skills (SHREYAS).
• ABOUT	The scheme has been launched by the Ministry of Human Resources Development for providing industry apprenticeship opportunities to the general graduates exiting in April 2019 through the National Apprenticeship Promotional Scheme (NAPS).
	It comprises of the initiatives of three Central Ministries, namely the Ministry of Human Resource Development, Ministry of Skill Development & Entrepreneurship and the Ministry of Labour& Employment viz the National Apprenticeship Promotion Scheme (NAPS), the National Career Service (NCS) and introduction of BA/BSc/BCom (Professional) courses in the higher educational institutions.
•	The programme is conceived for students in degree courses, primarily non-technical, with a view to introduce employable skills into their learning, promote apprenticeship as integral to education and also amalgamate employment facilitating efforts of the Government into the education system so that clear pathways towards employment opportunities are available to students during and after their graduation.
•	NAPS provides for placing of apprentices upto 10% of the total work force in every business/industry.
•	The scheme will be implemented by the Sector Skill Councils (SSCs), initially the Banking Finance Insurance Services (BFSI), Retail, Health care, Telecom, Logistics, Media, Management services, ITeS and Apparel. More sectors would be added over time with emerging apprenticeship demand and curriculum adjustments.



• Under the NAPS scheme, Central Government shares 25% of the stipend per month subject to a maximum of Rs.1500 p.m during the period of the apprenticeship. Apart from that, an amount upto Rs.7500 will be met towards basic training cost, where needed.

Aim of SHREYAS:

• The aim is to enhance the employability of Indian youth by providing 'on the job work exposure' and earning of stipend. In all the tracks together, it is proposed to cover 50 lakh students by 2022.

Objectives of SHREYAS:

- To improve employability of students by introducing employment relevance into the learning process of the higher education system.
- To forge a close functional link between education and industry/service sectors on a sustainable basis.
- To provide skills which are in demand, to the students in a dynamic manner.
- To establish an 'earn while you learn' system into higher education.
- To help business/industry in securing good quality manpower.
- To link student community with employment facilitating efforts of the Government.

NATIONAL MINERAL POLICY 2019

• National Mineral Policy (NMP) 2019 has been approved by the cabinet on 28th February, 2019.

• ABOUT

NMP 2019

- It replaces the extant NMP 2008.
- Ministry of Mines constituted a committee in 2017 under the chairmanship of Dr. K Rajeswara Rao to review NMP 2008.
- Based on the received feedback and the comments/ suggestions from the Central Ministries/ Departments the Ministry of Mines finalized the NMP 2019.
- It is aimed to have a more effective, meaningful and implementable policy that brings in further transparency, better regulation and enforcement, balanced social and economic growth as well as sustainable mining practices and sustainable mining sector development in future while addressing the issues of project affected persons especially those residing in tribal areas.

Features of the policy:

- Introduction of Right of First Refusal for RP/PL holders
- Encouraging the private sector to take up exploration
- Auctioning in virgin areas for composite RP cum PL cum ML on revenue share basis
- Encouragement of merger and acquisition of mining entities and
- Transfer of mining leases and creation of dedicated mineral corridors to boost private sector mining areas.
- The 2019 Policy proposes to grant status of industry to mining activity to boost financing of mining for private sector and for acquisitions of mineral assets in other countries by private sector
- It also mentions that Long term import export policy for mineral will help private sector in better planning and stability in business



• The Policy also mentions rationalize reserved areas given to PSUs which have not been used and to put these areas to auction, which will give more opportunity to private sector for participation

- The Policy also mentions to make efforts to harmonize taxes, levies & royalty with world benchmarks to help private sector
- Concept of Inter-Generational Equity that deals with the well-being not only of the present generation but also of the generations to come
- The Policy also proposes to constitute an inter-ministerial body to institutionalize the mechanism for ensuring sustainable development in mining.

Changes introduced in the NMP, 2019:

- The focus on make in India initiative and Gender sensitivity in terms of the vision.
- In so far as the regulation in Minerals is concerned, E-Governance, IT enabled systems, awareness and Information campaigns have been incorporated.
- Regarding the role of state in mineral development online public portal with provision for generating triggers at higher level in the event of delay of clearances has been put in place.
- NMP 2019 aims to attract private investment through incentives while the efforts would be made to maintain a database of mineral resources and tenements under mining tenement systems.
- The new policy focusses on use coastal waterways and inland shipping for evacuation and transportation of minerals and encourages dedicated mineral corridors to facilitate the transportation of minerals.
- The utilization of the district mineral fund for equitable development of project affected persons and areas.

NATIONAL POLICY ON SOFTWARE PRODUCTS – 2019

• CONTEXT •	The National Policy on Software Products (NPSP) – 2019 has been approved by the Union Cabinet to develop India as a Software Product Nation.
• ABOUT •	The Indian IT Industry has predominantly been a service Industry. However, a need has been felt to move up the value chain through technology oriented products and services. Under this regard, the Government has approved the NPSP – 2019 to create a robust software product ecosystem.
	Initially, an outlay of Rs. 1500 crore is involved to implement the programmes/schemes envisaged under this policy over the period of 7 years. Rs. 1500 crore is divided into Software Product Development Fund (SPDF) and Research & Innovation fund.
•	"Software Product Development Fund' will participate in venture funds having objectives aligned to this policy and so can leverage private investments targeted to promote software product ecosystem. The SPDF will be financially managed by a professional financial institution.
•	The policy proposes to create a ₹5,000-crore fund with industry participation to promote emerging technology such as Internet of Things, Artificial Intelligence, Blockchain, Big Data and robotics. Of this, government contribution will be ₹1,000 crore.
•	The Policy will lead to the formulation of several schemes, initiatives, projects and measures for the development of Software products sector in the country as per the roadmap envisaged therein.



Aims of NPSP – 2019

- To develop India as the global software product hub, driven by innovation, improved commercialization, sustainable Intellectual Property (IP), promoting technology startups and specialized skill sets.
- To align with other Government initiatives such as Start-up India, Make in India and Digital India, Skill India etc. so as to create Indian Software products Industry of USD ~70-80 billion with direct & indirect employment of ~3.5 million by 2025.

Five Missions of NPSP-2019:

- To promote the creation of a sustainable Indian software product industry, driven by intellectual property (IP), leading to a ten-fold increase in India share of the Global Software product market by 2025. The objective of the programme will be to promote IP driven software product entrepreneurship. The programme with a budgetary outlay of ₹500 crore will provide financial support to MSMEs and will have matching contribution from the government and the industry
- To nurture 10,000 technology startups in software product industry, including 1000 such technology startups in Tier-II and Tier-III towns & cities and generating direct and in-direct employment for 3.5 million people by 2025.
- To create a talent pool for software product industry through (i) up-skilling of 1,000,000 IT professionals, (ii) motivating 100,000 school and college students and (iii) generating 10,000 specialized professionals that can provide leadership.
- To build a cluster-based innovation driven ecosystem by developing 20 sectoral and strategically located software product development clusters having integrated ICT infrastructure, marketing, incubation, R&D/testbeds and mentoring support. The Policy will encourage innovation towards solving societal challenges.
- In order to evolve and monitor scheme & programmes for the implementation of this policy, National Software Products Mission will be set up with participation from Government, Academia and Industry.
- Create substantive employment and entrepreneurial opportunities in emerging technologies and will boost revenues and exports in the sector.
 - Leverage opportunities available under the Digital India Programme, thus, leading to a boost in inclusive and sustainable growth.

PRADHAN MANTRI JI-VAN YOJANA

۲	CONTEXT •	Cabinet Committee on Economic Affairs has approved the "Pradhan Mantri JI-VAN (Jaiv Indhan- Vatavaran Anukool Fasal Awashesh Nivaran) Yojana" for providing financial support to Integrated Bioethanol Projects using lignocellulosic biomass and other renewable feedstock.
•	ABOUT •	"Pradhan Mantri JI-VAN Yojana" is being launched as a tool to create 2G Ethanol capacity in the country and attract investments in this new sector.
	•	It will be supported with total financial outlay of Rs.1969.50 crore for the period from 2018-19 to 2023-24. Under this Yojana, 12 commercial scale and 10 demonstration scale second generation (2g) ethanol projects will be provided a Viability Gap Funding (VGF) support in two phases.
	•	The scheme focuses to incentivize 2G Ethanol sector and support this nascent industry by creating a suitable ecosystem for setting up commercial projects and increasing Research & Development in this area.
	•	The ethanol produced by the scheme beneficiaries will be mandatorily supplied to Oil Marketing Companies (OMCs) to further enhance the blending percentage under EBP Programme.



• Centre for High Technology (CHT), a technical body under the aegis of MoP&NG, will be the implementation Agency for the scheme.

Apart from supplementing the targets envisaged by the Government under EBP programme, the scheme will also have the following benefits:

- Meeting Government of India vision of reducing import dependence by way of substituting fossil fuels with Biofuels.
- Achieving the GHG emissions reduction targets through progressive blending/ substitution of fossil fuels.
- Addressing environment concerns caused due to burning of biomass/ crop residues & improve health of citizens.
- Improving farmer income by providing them remunerative income for their otherwise waste agriculture residues.
- Creating rural & urban employment opportunities in 2G Ethanol projects and Biomass supply chain.
- Contributing to Swachh Bharat Mission by supporting the aggregation of non¬food biofuel feedstocks such as waste biomass and urban waste.
- Indigenizing of second generation biomass to ethanol technologies.

MAINAMATI MAITREE EXERCISE 2019

ONTEXT

- Border Security Force (BSF) and Border Guards Bangladesh (BGB) recently concluded a three-day 'Mainamati Maitree Exercise 2019' as a part of 'Confidence Building Measures' between the two border guards.
- ABOUT
- The exercise was named after a hill range situated 8 km west of Comilla Township in Bangladesh, which is home to an ancient Buddhist archaeological site in the region.
- The main objective of this exercise was to plan and conduct anti-smuggling and anticriminal activity related operations with ultimate aim of achieving better joint operational efficiency and border management in the area of responsibility of respective BSF and BGB Battalions participating in the joint exercise.
- During the joint exercise held here, troops from both border guarding forces participated in joint patrolling, anti-smuggling drills on contraband goods through riverine border of River Gomati, simulated raids on suspected places of concealment inside territories of both countries, effective checking of goods and identity control of passengers at respective International Check-Posts (ICPs), holding flag meetings and other information sharing mechanism.
- The exercise ended with a debriefing of officers and men by officiating Inspector General of BSF in Tripura Frontier AK Singh and Region Commander of BGB region of Sarail.

SUSHMA SWARAJ AS GUEST OF HONOUR AT OIC

• CONTEXT

• External Affairs Minister Sushma Swaraj attended the foreign ministers' meeting of Organisation of Islamic Cooperation as Guest of Honour at the invitation of the UAE's Sheikh Abdullah bin Zayed Al Nahyan.



● ABOUT	• This is the first time India has been invited to development minister Fakhruddin Ali Ahme after Pakistan's President Yahya Khan lobbied	the OIC after 1969, when then Industrial d was disinvited on arriving at Morocco, against Indian participation.
	 This move is a major diplomatic victory for t that has opposed India's entry to this group, d populated country in the world. 	he country and a severe blow to Pakistan espite India being the third largest Muslim
	 External Affairs Minister Sushma Swaraj cited that the menace of terrorism is caused by belief". 	verses from Quran and Rig Veda to stress "distortion of religion" and "misguided
	• She called for building pressure on the co dismantle terror infrastructure on their soil an	untries that support terrorist groups to ad stop funding such outfits.
	 In the backdrop of strain in relation and irk member OIC to India as a guest of honour, Minister to Abu Dhabi. 	ed by the invitation extended by the 57- Pakistan decided not to send its Foreign
	Why the OIC matters?	
	• The OIC — formerly Organisation of Islamic governmental organisation in the world afte in four continents.	Conference — is the second largest inter- r the UN, with a membership of 57 states
	 It describes itself as "the collective voice of the is "to safeguard and protect the interests of the international peace and harmony among variant 	ne Muslim world", and its stated objective ne Muslim world in the spirit of promoting ous people of the world".
	• It has reserved its membership for Muslim- couple of other small countries have Observe	majority countries. Russia, Thailand, and er status.
	 At the 45th session of the Foreign Ministers' S country, had suggested that India, where my should be given Observer status, but Pakistar 	Summit in May 2018, Bangladesh, the host bre than 10% of the world's Muslims live, in had opposed the proposal.
	OIC has been pro-Pak on J&K	0
	• The OIC has been generally supportive of Pa statements criticising the alleged Indian "atro	kistan's stand on Kashmir, and has issued cities" in the state.
, e	 In December 2018, the OIC General Secretari killing of innocent Kashmiris by Indian forces in "direct shooting at demonstrators" as a "terro community to play its role in order to reach a Kashmir". 	at "expressed strong condemnation of the Indian-occupied Kashmir", describing the rist act", and "called upon the international just and lasting solution to the conflict in
	OIC meet ,1969	
	• India was invited to the first OIC meet in was headed by the then Saudi monarch, I countries.	Rabat, Morocco in 1969. The meeting King Faisal, and heads of some Muslim
	 India was represented by Former President away from the meeting as the then Pakist walk out of the inaugural OIC meet, if the In 	Fakhruddin Ali Ahmed, who had to walk an President Yahya Khan threatened to ndian delegation was invited.
	• Gurbachan Singh, the then ambassador to was evicted from the conference.	Morocco heading the Indian delegation
PE	KIVIANENT RESIDENT CE	KTIFICATE

• Arunachal Pradesh has been recently engulfed into violence after government's decision to extend the Permanent Residence Certificate eligibility to Deoris, Sonowal, Morans, Adivasis and Mishings.



GIS SCORE

• The government clarified that the state government was not bringing the bill on PRC but only tabling a report of the Nabam Rebia-led JHPC, which comprises of members and student organisations.

• ABOUT

What is permanent resident certificate?

- Permanent resident certificate is a legal document issued to Indian citizens that serves as evidence of residence and is required to be submitted as residential proof for official purpose.
- It enables the citizens to avail various policies and claims made in their particular state.

What has the state government proposed?

- The BJP-led government in the state is considering issuing the certificate to the six non-APSTs communities living in Namsai and Changlang districts and to the Gorkhas living in Vijaynagar. Amongst those communities are Deoris, Sonowal Kacharis, Morans, Adivasis and Mishings. Most of these communities are recognised as Scheduled Tribes in neighbouring Assam.
- A Joint High Power Committee (JHPC), after holding discussions with the stakeholders, recommended granting PRC to the six communities, who are not natives of Arunachal Pradesh but have been living in Namsai and Changlang districts for decades.

Why are people in Arunachal protesting against PRC?

• There is resentment among several community-based groups and organisations in Arunachal Pradesh, who feel the rights and interests of indigenous people will be compromised if the proposal is implemented.

Where does the proposal stand now?

• The recommendation of JHPC was supposed to be tabled in the Assembly. However, in the wake of agitations by various groups, it was not tabled as the Speaker adjourned the House sine die.

GLOBAL DIGITAL HEALTH PARTNERSHIP SUMMIT

ONTEXT India hosted 4th summit of Global Digital Health Partnership in collaboration with World Health Organization (WHO) and the Global Digital Health Partnership (GDHP). ABOUT More on news The commitment of Indian government towards digital health along with health initiatives taken by the government were highlighted in the summit. It was reiterated that India is committed to securing Universal Health Coverage for the underprivileged and deprived section of our society with the launch of a comprehensive healthcare scheme by the name of Ayushman Bharat. Ayushman Bharat with the twin pillars of Health & Wellness Centres (HWCs) at primary and secondary levels of healthcare and PM-Jan Aarogya Yojana (PMJAY) at the tertiary level will revolutionise the health care in India. National Resource Centre for Electronic Health Record (EHR) Standards has also been set up in order to augment facilitation for adoption of the notified EHR Standards. India took the world stage at the 71st World Health Assembly in Geneva, Switzerland by successfully introducing and unanimous adoption of Resolution on Digital Health. Health Ministry is in the process of establishing an Integrated Health Information Platform for interoperability amongst various health IT systems and a pan-India exchange of Electronic Health Records of citizens ensuring privacy, security, and confidentiality of data.





Theme of the conclave

• The Ministerial Conclave discussed the implication of digital health interventions to health services accessibility, quality and affordability and explores ways of leveraging digital health technologies to strengthen the healthcare delivery systems globally.

Global Digital Health Partnership

- It is an international collaboration of governments, government agencies and multinational organisations dedicated to improving the health and well-being of their citizens through the best use of evidence-based digital technologies.
- It has been created to provide an international platform to facilitate global collaboration and cooperation to share policy insights, best practices and evidence based implementation of safe, secure digital technologies to improve the quality, accessibility and sustainability of health systems.
- The vision of the GDHP is to support governments and health system reformers to improve the health and well-being of their citizens through the best use of evidence-based digital technologies.
- Currently, along with India, 22 countries are the member of this group.
- **SIGNIFICANCE** It is the only international platform with such a wider participation on the issue of digital health. With US, UK and Australia having done three Summit meeting so far, India has taken the leadership role in the GDHP by organizing Summit.

ATMOSPHERIC WAVES EXPERIMENT

• CONTEXT	• The National Aeronautics and Space Administration has selected a new mission- Atmospheric Waves Experiment (AWE)- that will help scientists understand and ultimately, forecast the vast space weather system around the Earth.
• ABOUT	Atmospheric Waves Experiment
	 Its objective is to study and focus on airglow, colorful bands of light in Earth's atmosphere to determine what combination of forces drive space weather in upper atmosphere.
	• It will be the first such experiment to obtain global observations of important driver of space weather in dynamic region of Earth's upper atmosphere that can cause interference with radio and GPS communications.
	• The mission will cost \$42 million and is planned to launch in August 2022, attached to the exterior of the Earth-orbiting International Space Station (ISS).
	• AWE is a Mission of Opportunity under NASA's Heliophysics Explorers Program, which conducts focused scientific research and develops instrumentation to fill the scientific gaps between the agency's larger missions.
	 AWE was selected for development based on its potential science value and the feasibility of its development plans.
• SIGNIFICANC	 Studying space weather is significant as it can have profound impacts, affecting technology and astronauts in space, disrupting radio communications and at its most severe, overwhelming power grids.
	 It was earlier thought that only Sun's constant outflow of ultraviolet (UV) light and particles, solar wind, could affect airglow region. However, now researchers have learned that solar variability is not enough to drive changes observed at this region and Earth's weather also having effect on it.
	 AWE mission will investigate how waves in lower atmosphere, caused by variations in densities of different packets of air, impact upper atmosphere.





PARAM-SHIVAAY

ONTEXT

• ABOUT

- Recently, Param-Shivaay, a supercomputer, was inaugurated at Indian Institute of Technology- Banaras Hindu University (IIT-BHU) under the National Supercomputing Mission.
- Supercomputer 'ParamShivay' with a capacity of 833 teraflop has been developed by the Center for Development of Advanced Computing (C-DAC).
 - It will include 1 peta byte secondary storage and appropriate open source system and application software suite using 223 processor nodes, 384 GB per node DDR4 RAM, parallel file system, including CPU and GPU.
 - The supercomputer will help in simulation and modeling which will be applied in many areas like climate assessment, weather forecasting, space engineering, seismic analysis, finance, disaster simulation and management, search astrophysics, macro-data analytics, information collection.
 - Scientists, teachers and research students, government research laboratories in adjacent engineering colleges to IIT-BHU can avail benefits of the projects. About 40 per cent computer power will be used by the students of Navodaya Vidyalaya.

India's first supercomputer called PARAM 8000 was launched in 1991. Pratyush (4.0 Petaflops) and Mihir (2.8 petaflops) are the other supercomputers established at Indian Institute of Tropical Meteorology (IITM), Pune and National Center for Medium Range Weather Forecast (NCMRWF), Noida respectively.

WIDE FIELD INFRARED SURVEY TELESCOPE

۲	CONTEXT •	NASA has recently revealed its Wide Field Infrared Survey Telescope (WFIRST), a mission scheduled for launch in the mid-2020s.
۲	ABOUT •	With 300-megapixel Wide Field Instrument, it will be able to map the Milky Way and other galaxies 100 times faster than the famous Hubble space telescope.
	•	The new telescope could find as many as 1,400 new planets outside our solar system, enabling humans to find the largest, deepest and clearest picture of the universe as well as the existence of extraterrestrial life.
	•	It will scan a small piece of the universe - about two square degrees - at a resolution higher than any similar mission in the past.
	•	The mission will build on the work of Kepler, a deep-space telescope that found more than 2,600 planets outside our solar system. The Kepler mission ended in October 2018.
	•	While the Kepler began the search by looking for planets that orbit their stars closer than the Earth is to our Sun the WFIRST will complete it by finding planets with larger orbits.
	•	WFIRST's has a unique combination of both a wide field of view and a high resolution therefore makes it so powerful for microlensing planet searches.
	•	Infrared light allows it to see through dust that lies in the plane of the Milky Way in between us and the galactic center, something optical telescopes on the ground cannot do. This gives WFIRST access to parts of the sky that are more densely packed with stars.



- To find new planets, it will use gravitational microlensing, a technique that relies on the gravity of stars and planets to bend and magnify the light coming from stars that pass behind them from the telescope's viewpoint.
- This micro-lensing effect allows a telescope to find planets orbiting stars thousands of light-years away from the Earth much farther than other planet-detecting techniques.
- It will spend long stretches of time continuously monitoring 100 million stars at the centre of the galaxy adding that about 100 of those not yet discovered planets could have the same or lower mass as Earth.

Hubble Telescope

- It is the first major optical telescope to be placed in space, the ultimate mountaintop. It was launched in 1990.
- Scientists have used Hubble to observe the most distant stars and galaxies as well as the planets in our solar system.
- NASA named the world's first space-based optical telescope after American astronomer Edwin P. Hubble. He confirmed an "expanding" universe, which provided the foundation for the big-bang theory.

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