News Analysis (18 Jul, 2020)

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US-India Strategic Energy Partnership

Why in News

Recently, India and the USA have participated in a **virtual ministerial meeting** of the **U.S.-India Strategic Energy Partnership (SEP)** to review progress, highlight major accomplishments, and prioritize new areas for cooperation.

- The SEP was established in **April 2018** whose objective is to encourage meaningful engagements through robust **government-to-government cooperation** and **industry engagement.**
- The **next Ministerial meeting** will be held in **2021.**

Key Points

- **Description:**
    - The SEP organizes **inter-agency engagement** on both sides across **four primary pillars** of cooperation:
        - Power and Energy Efficiency,
        - Oil and Gas,
        - Renewable Energy,
        - Sustainable Growth.
    - The SEP also supports USA efforts under the **AsiaEDGE initiative,** which establishes **India as a strong energy partner** in the **Indo-Pacific region.**
- **Major Outcomes:** Number of achievements and priorities for new work under the SEP were announced by both sides. These can be **broadly segregated** under the **four primary pillars of cooperation,** as given below:

1. Power and Energy Efficiency:

- **Modernizing the Power System:** Both countries have been collaborating on the integration of **new technologies** into the smart grid; modernizing the power distribution sector i.e. rooftop solar, deployment of Smart Meters etc.
    - The two countries are leading joint research and development (R&D) through **Advance Clean Energy-Research (PACE-R)** on **smart grids and energy storage** to increase resilience and reliability of the electric grid.
- New areas of research on **transformational power generation** based on **supercritical CO_2 (sCO_2) power cycles** and **advanced coal technologies** for power generation including carbon capture, utilization, and storage (CCUS) were also initiated.
    - **sCO_2** is a **fluid state of carbon dioxide** where it is held at or above its critical temperature and critical pressure.
- Commitment to advance **civil nuclear cooperation** i.e. recent progress on the **Westinghouse** (USAs Electric Company) **nuclear reactor project at Kovvada, Andhra Pradesh** were also discussed.
- It also promotes continued bilateral R&D engagement on advanced civil nuclear energy technologies through the **U.S.-India Civil Nuclear Energy Working Group.**

2. Oil and Gas: A Memorandum of Understanding (MoU) was signed to begin cooperation on **Strategic Petroleum Reserves operation.**

- The possibility of **India storing oil in the U.S. Strategic Petroleum Reserve** was also discussed.
- Both sides have noted the significant increase in the bilateral hydrocarbon trade through SEP touching 9.2 billion USD during 2019-20 and marking a **93% increase since 2017-18,**
    - Through the **U.S.-India Natural Gas Task Force,** it affirmed to promote greater hydrocarbon trade between the two countries.

3. Renewable Energy: The both sides launched a **public-private Hydrogen Task Force** to help scale up technologies to **produce hydrogen from renewable energy and fossil fuel sources** and to bring down the cost of deployment for enhanced energy security and resiliency.

- **Efficient Buildings and Clean Technologies:** A MoU was signed to collaborate on India's first-ever **Solar Decathlon in 2021,** establishing a **collegiate competition** to prepare the next generation to design and build high efficiency buildings powered by renewables.
    - In response to the Covid-19 **pandemic**, **United States Agency for International Development (USAID)** and **Energy Efficiency Services Ltd (EESL)**, India has jointly initiated **"Retrofit of Air Conditioning to Improve Air Quality for Safety and Efficiency" (RAISE)** for healthy and energy efficient buildings.
    - Launched collaboration between the **USA Department of Energy (DOE) National labs** and the **Indian National Institutes under the Ministry of New & Renewable Energy** as part of the **South Asia Group for Energy (SAGE), supported by USAID,** for joint research on development of advanced clean technologies.
- Information exchange on **sustainable biofuel production (bioethanol and renewable diesel)** and use for air and sea transport were also discussed.
- It will also explore cooperation on utilizing the economic value of converting bio-waste into biogas.

4. Sustainable Growth: The best practices are being adopted through **methodologies in energy data management and capacity building in energy modeling.**

- **USAID** and **NITI Aayog** jointly launched the **India Energy Modeling Forum** to build a network of modeling communities and its linkage with Government for analytical work and policy making exercise.
- **Empowering Women in the Energy Sector:** USAID launched the **South Asia Women in Energy (SAWIE) platform** focused on the power sector and both the countries have been working to incorporate **gender-focused activities** across the technical pillars.

Source: PIB

UN ECOSOC Meet

Why in News

Recently, the **United Nations' Economic and Social Council (ECOSOC)** has held a high-level dialogue on the subject **'Multilateralism after Covid-19: What kind of UN do we need at the 75th Anniversary?'**

- The Prime Minister of India gave a speech focusing on **India's battle against the Covid-19 pandemic** and emphasised upon the **need of multilateralism in achieving sustainable peace and prosperity.**
- He also indicated **India's push for a permanent seat in the UN Security Council.**
- The UN will celebrate its **75th anniversary on 24th October 2020.**

Key Points

- **Covid-19 and Current Indian Scenario:**
  - India has **crossed the 1 million mark** for Covid-19 cases recently, making it the **third highest incidence** in the world.
  - India also has the **third highest recoveries** at about 644,000, **after the USA and Brazil.**
  - However, its **recovery rate is about 63%,** which ranks **India at number 42** in the world.
- **India's Efforts Against Covid-19:**
  - India has **extended assistance** to more than 150 countries.
        For example, assistance in materials and services to Afghanistan, Bangladesh, Bhutan, the Maldives **(Operation Sanjeevani)**, Nepal and Sri Lanka.
  - India set up a **South Asian Association for Regional Cooperation** (SAARC) **Covid-19 Emergency Fund** in the South Asian neighbourhood.
  - **PM Cares Fund** to deal with any kind of emergency or distress situation like posed by the current pandemic.
  - **Atmanirbhar Bharat Abhiyan** with **various economic stimulus packages** worth Rs. 20 lakh crore aimed towards achieving the mission of self reliance.

Multilateralism

- It is the **process of organizing relations between groups of three or more states.**
- It generally comprises certain qualitative elements or principles that shape the character of the arrangement or institution. **These principles are:**
  - **Indivisibility of interests** among participants.
  - Commitment to **diffuse reciprocity,** i.e. not an equivalence of obligations or concessions in any one exchange but a balance in an ongoing, potentially indefinite, series of exchanges with a group of partners instead of expectations of direct obligations or concessions by a particular member.
  - System of **dispute settlement** intended to enforce a particular mode of behaviour.

- Multilateralism has a long history but it is principally associated with the era after **World War II**, during which there was a rapid growth of multilateral agreements. The organizations most strongly embodying the principle of multilateralism are to be found in **trade** like the **World Trade Organization** (WTO) and **security** like the **North Atlantic Treaty Organization** (NATO).
- Multilateral institutions have played a **significant role in postwar global governance** and are arguably **more stable** than other forms of organization because the **principles underlying them appear to be more durable and more able to adapt** to external changes.

Economic and Social Council

- It is the principal body for **coordination, policy review, policy dialogue and recommendations on economic, social and environmental issues,** as well as **implementation of internationally agreed development goals.**
- It has **54 members,** elected by the General Assembly for **overlapping three-year terms.**
- It is the UN's **central platform for reflection, debate and innovative thinking on sustainable development.**
- **Each year, ECOSOC structures its work around an annual theme of global importance** to sustainable development. This **ensures focused attention,** among ECOSOC's array of partners and throughout the UN development system.
- It **coordinates the work** of the 14 UN specialized agencies, ten functional commissions and five regional commissions, receives reports from nine UN funds and programmes and issues policy recommendations to the UN system and to member states.
- **Few important bodies under the purview of ECOSOC:**
  - **International labour Organization** (ILO)
  - **Food and Agriculture Organization** (FAO)
  - **United Nations Educational, Scientific and Cultural Organization** (UNESCO)
  - **World Health Organization** (WHO)
  - Bretton Woods Twins (**World Bank Group** and **International Monetary Fund**)
  - **United Nations Children's Fund** (UNICEF)
  - Apart from these there are various Functional and Regional Commissions, Standing Committees, Ad Hoc and Expert Bodies as well.

Way Forward

- India called on the UN members to pledge for reform within the world body and held that the multilateral system needs to be more representative.

- The United Nations was originally born from the furies of World War II and the current fury of the pandemic provides the context for its rebirth and reform.
- At this pivotal moment, with Covid-19 still spreading, geopolitical tensions rising and the cry for racial justice, social justice and climate justice ever more urgent, the UN and world leaders have a responsibility to respond to the anxieties, fears and hopes of the people.

Source: TH

Issue of Grant of Remission to Convicts by States

Why in News

Recently, the **Supreme Court of India** referred to a seven-judge bench the issue **whether states can grant benefit of remission to convicts under the Constitution** by laying down a common policy.

Key Points

- The legal issue has arisen before the Supreme Court (SC) while hearing the bail plea of a **murder case convict Pyare Lal.**
- The SC was told that Pyare Lal has been released from the jail after being granted the benefit of remission by the Haryana Governor **under Article 161 of the Constitution,** as per a 2019 policy of the state government.
  - According to the policy, those entitled to get relief included:
    - Male convicts who have been sentenced for life in a murder case and are 75 years of age and completed eight years of sentence.
    - Female convicts who have been sentenced for life in a murder case and are 65 years of age and completed six years of sentence.
  - The policy also included that the conduct of such prisoners has to remain satisfactory during confinement and they must not have committed any major jail offence in the last two years.
  - **Article 161 of the Constitution** deals with the judicial **power of the Governor to pardon a convict**. Such power is also exercised by the **President under Article 72** of the Constitution.

- The larger bench will also look into **whether states can exercise such powers without placing "facts and materials" of each case before the Governor.**
    - The SC noted that in the case of Pyare Lal, the Haryana government had **placed no facts or material before the Governor** and that the benefit was conferred by the Executive itself in terms of the Policy.
    - The Governor did not have the occasion to look into the issues such as severity of the crime or the manner in which the crime was committed or the impact of the crime on the Society.
- In the *Maru Ram vs Union of India* 1980 case, the SC had ruled that **no separate order for each individual case would be necessary** for granting the benefit of remission **but a general order must be clear enough to identify the group of cases.**
- However, decisions of SC rendered since the *Maru Ram case,* shows that the relevant material (without any political vendetta or party favouritism) must be placed before the Governor in order to enable him to exercise the power under Article 161, failure on that count could result in quashing of the concerned orders of remission.
- The larger bench will also look into whether the exercise of granting remission by states can override the requirements under **Section 433-A of the Code of Criminal Procedure (CrPC).**
    - Under Section 433-A of CrPC, a person, serving life term, cannot be granted remission benefit without serving 14 years in prison.

Pardoning Power of President and Governor

- **Article 72 and Article 161** empowers the **President and the Governors respectively,** the power to **grant pardons, reprieves, respites or remissions** of punishment or to **suspend, remit or commute** the sentence of any person convicted of any offence.
- The **pardoning power of the President** extends to the:
    - Punishment or sentence for an offence against a Union Law,
    - Punishment or sentence is by a court-martial (military court), and
    - Punishment is a Death sentence.
- The **pardoning power of the Governor** extends to the sentence of any person convicted of any offence against any State law.
    - The Governor **cannot pardon against the death sentence and sentence of a Court Martial.**
- The scope of the pardoning power of the President under Article 72 is **wider** than the pardoning power of the Governor under Article 161.

- The meaning of the terms:
    - **Pardon:** It removes **both the sentence and the conviction** and **completely absolves** the convict from all sentences, punishments, and disqualifications.
    - **Commutation:** It denotes the **substitution of one form of punishment with a lighter form of punishment.** For example, a death sentence may be commuted to rigorous imprisonment.
    - **Remission: It** implies **reducing the period of the sentence without changing its character.** For example, a sentence of rigorous imprisonment for five years may be remitted to rigorous imprisonment for one year.
    - **Respite:** It denotes **awarding a lesser sentence in place of one originally awarded due to some special fact,** such as the physical disability of a convict or the pregnancy of a woman offender.
    - **Reprieve:** It implies a **stay of the execution of a sentence (especially that of death) for a temporary period.** Its purpose is to enable the convict to have time to seek pardon or commutation from the President.

Source: IE

Challenge to Anti Defection Law

Why in News

Recently, the 19 rebel MLAs of Rajasthan's ruling party (Congress) have filed a petition before the High Court **challenging the disqualification notices** issued to them by the Assembly **Speaker** under **Anti Defection Law.**

> The disqualification notice was issued on MLAs' absence from **successive Congress Legislature Party (CLP) meetings** and a **"conspiracy to bring down the government".**

Key Points

- **Rebel MLAs Arguments:**
  - In their writ petition, **citing violation of their freedom of speech and expression** the legislators argued that they **had neither given up their membership of the House** nor did their failure to attend the two CLP meetings render them liable for disqualification on the ground of defection.
  - Therefore they challenged **Clause 2(1)(a) of the <u>Tenth Schedule of the Constitution,</u>** and the validity of the **Rajasthan Assembly Members (Disqualification on the Grounds of Changing Party) Rules, 1989.**
    - **Clause 2(1)(a) of the Tenth Schedule** states that a member may be disqualified "if he has voluntarily given up his membership" of a political party.
  - They also contended that they could not be disqualified merely for disagreeing with the decisions and policies of some leaders outside the Assembly.
- **Supreme Court's Ruling:** The <u>**Supreme Court**</u> in the *Kihoto Hollohan versus Zachillu and Others,* **1992** has said that **judicial review** cannot be available at a **stage prior** to the making of a **decision by the Speaker/Chairman.**
  - Nor would interference be permissible at an interlocutory stage of the proceedings.
  - The only exception for any **interlocutory interference (decree or judgment)** being cases of interlocutory disqualifications or suspensions which may have **grave, immediate and irreversible repercussions and consequences.**
  - Therefore, Constitutional courts cannot judicially review disqualification proceedings under the **Tenth Schedule (anti-defection law)** of the Constitution until the **Speaker or Chairman makes a final decision on merits.**
- **Reason for Limited Role of Courts:** The Bench explained that the reason for limiting the role of courts in ongoing defection proceedings is that the **office of the Speaker** is held in the **highest respect and esteem** in parliamentary traditions.
- **Judicial Review:** It had said that even the **scope of judicial review against an order of a Speaker or Chairman** in anti-defection proceedings would be confined to **jurisdictional errors,** that is infirmities based on **violation of constitutional mandate, mala fide actions** and **non-compliance with rules of natural justice.**

Disqualification under the Tenth Schedule

- The **Anti-Defection Law** was passed in 1985 through the **52nd amendment to the Constitution.** It added the **Tenth Schedule to the Indian Constitution.** The main intent of the law was to combat "the evil of political defections".

- According to it, **a member of a House belonging** to any political party becomes disqualified for being a member of the House, if:
    - He **voluntarily gives up his membership** of such political party; or
    - He **votes or abstains from voting in such House** contrary to any direction issued by his political party without obtaining prior permission of such party and such act has not been condoned by the party within 15 days.

Exceptions to the Disqualification on the Ground of Defection

- If a member **goes out of his party as a result of a merger of the party** with another party. A merger takes place when two-thirds of the members of the party have agreed to such a merger.
- If a member, **after being elected as the presiding officer of the House, voluntarily gives up the membership** of his party or rejoins it after he ceases to hold that office. This exemption has been provided in view of the dignity and impartiality of the office.

Powers of Speaker with regard to Anti-Defection Law

Any question **regarding disqualification** arising out of **defection is to be decided by the presiding officer of the House.**

Source: TH

Bhagirathi Eco-Sensitive Zone

Why in News

Recently, the **Ministry of Environment, Forest and Climate Change (MoEF&CC)** has **approved the Zonal Master Plan for the Bhagirathi Eco-Sensitive Zone** to pave the way for faster **execution of Char Dham Road Project.**

Key Points

- **Background:**
    - In 2012, the **MoEF&CC** issued a gazette notification declaring the **watershed area along the stretch of river Bhagirathi,** covering 4,179.59 sq km from Gaumukh to Uttarkashi, an **Eco-Sensitive Zone (ESZ).**
        - **ESZs** are the ecologically important areas designated to be protected from industrial pollution and unregulated development under the **Environment Protection Act of 1986.**

- The 2012 notification was issued keeping in view the requirements of the local people without affecting their rights and privileges and also ensuring eco-friendly development for their livelihood security.
  - It **sought to protect the entire fragile Himalayan region** by restricting hydropower projects of over 2 MW, riverbed mining and change of land use.
- However, it was **amended in 2018** following **Uttarakhand government's objection** that the notification was **'anti-development.'**
  - The 2018 amendment **approved land use change** to meet the local needs including civic amenities and other infrastructure development in larger public interest and national security with the prior approval of State Government with due study of environmental impacts.
  - It also **allowed cutting of hills** in eco-sensitive areas with proper study and construction on steep slopes in exceptional cases for the benefit of the community.
- **Zonal Master Plan (ZMP):**
  - The Bhagirathi Eco-Sensitive Zone notification **mandates the State Government of Uttarakhand to prepare ZMP** to be implemented under the supervision of the Monitoring Committee.
  - The ZMP is **based on watershed approach** and includes governance in the area of forest and wildlife, watershed management, irrigation, energy, tourism, public health and sanitation, road infrastructure, etc.
    - Watershed development approach is based on **participatory planning following a bottom-up approach** for developing a context appropriate plan for execution, strengthening of local level institution, conservation and appropriate management of watershed's natural resources.
    - Watershed is a geo-hydrological unit draining into a common point by a system of drains.
  - The approval of ZMP is expected to give a boost to conservation and ecology of the area and also to undertake developmental activities as permitted under ZMP.
- **Char Dham Road Project:**
  - The **Char Dham project** proposes to provide all-weather connectivity to **Yamunotri, Gangotri, Badrinath and Kedarnath,** and has 53 projects of 826 km length, involving an investment of Rs. 12,000 crore.
    - Bhagirathi is the source stream of Ganga. It emanates from Gangotri glacier at Gaumukh at an elevation of 3,892 m.

- **Concerns:**
  - In a report prepared after the Kedarnath disaster (2015), the **Geological Survey of India** stated that road construction in mountains **reactivates landslides** as it disturbs the **'toe of the natural slope of the hill'.**
  - The Himalayas is the region where **Indian tectonic plate goes under the Eurasian tectonic plate.**
  - Himalayas are in **seismic zone V,** thus a major earthquake can happen anytime.

Source: PIB

Brahmapuram Dumping Site: Kerala

Why in News

Recently, the **National Green Tribunal (NGT**) has issued an order **pertaining to the case of legacy waste (old municipal solid waste) piling up at the Kochi Corporation's Brahmapuram dumpsite.**

Key Points

- **The NGT Judgement:**
  - The Chairman and Member Secretary of the **Kerala State Pollution Control Board (KSPCB) will be held liable if they fail to initiate prosecution and recover compensation** from those **responsible for** the **unscientific handling of waste** at Brahmapuram.
  - The **progress (remediation of waste) appears to be very slow** and is **disregardful of the statutory and constitutional obligation** of providing a clean environment.
  - Further, the tribunal asked **why there should be a bar on a single tender** considering the critical situation.
    - The government decided to float fresh tenders as only one agency had met the minimum eligibility criteria when an **e-tender for biomining of legacy waste at Brahmapuram** was floated on 20th March, 2020.
    - The Bench suggested that **other available options (besides biomining) be considered for compliance with Solid Waste Management Rules, 2016.**
  - The tribunal expressed doubts on whether the **leachate (dark liquid that gets generated within the solid waste) generated** at the dumping yard **could be treated in an ordinary septage treatment plant** as it contained heavy metals.

- **Brahmapuram Dumpsite:**
  - **Only 1% of the recyclable plastic waste is recovered** while the remaining **99% ends up as heaps** in the dumping yard.
  - The leachate from the waste treatment plant at Brahmapuram is a major source of **pollution of the river Kadambrayar.**
  - Legacy waste was found to be a reason for the **fire outbreaks.**
  - In 2020, the **government took over the task of scientific management of legacy waste** accumulated at Brahmapuram waste dumping yard from the Kochi corporation by invoking the provision under **Section 24(e) of the Disaster Management Act, 2005.**

Municipal Solid Waste Management

- Municipal Solid Waste (MSW) Management is one of the most **serious challenges to environment protection** and although Solid Waste Management Rules have been framed in 2016, their implementation remains a problem.
    The local authorities are responsible for the development of infrastructure for collection, storage, segregation, transportation, processing and disposal of MSW.
- There are **two major challenges** of solid waste management:
  - **Managing the continuous flow** of solid waste on a **daily basis.**
  - Dealing with **the legacy of neglect** which has resulted in garbage heaps having built at dumpsites that were meant for waste processing and landfills.
- In July 2019, the **NGT directed that each local body would have to pay a compensation** of Rs. 10 lakh per month (for population of above 10 lakh); Rs. 5 lakh a month (for population between 5 lakh and 10 lakh), and Rs. 1 lakh per month for other local bodies for non-compliance with the Solid Waste Management Rules, 2016 from 1st April, 2020 till compliance.
  - This compensation is **equally applicable to local bodies found erring on the issue of remediation of legacy waste** (to be completed by 7th April, 2021 statutorily).
  - If local bodies are unable to bear financial burden, the **liability will be of state governments to take remedial action against the erring bodies.**
  - An **environment monitoring cell** may be set up in the office of chief secretaries of all states/UTs for compliance.
  - Remediation process is expected to be **done as per the guidelines issued by the Central Pollution Control Board (CPCB).**

Way Forward

- Kochi **needs to learn from success stories of urban local bodies like Thiruvananthapuram corporation,** which is bigger in terms of population but is effectively managing waste with hundreds of Thumboormuzhy bins, material recovery centres and a mobile application.
- Remediation of waste **will help in unlocking the land** occupied by waste sites which then can be used for setting up of biodiversity parks/buffer zones. Some parts can even be monetized.
- Further, **protecting the environment is a constitutional mandate.**

Source: TH

Assam's Flood and Kaziranga's Ecosystem

Why in News

The recent flood in Assam has led to heavy casualties, displacement of peoples and animals and destruction of property and environment.

It has also led to inundation of 80% of the area of Kaziranga National Park.

Key Points

- **Reason behind Floods:**
  - **Ill-maintained or poorly constructed river embankments** are the main reason behind the flooding.
    - One major feature of flood management in Assam is **total dependence on embankments.**
    - Assam began constructing embankments in the 1960s and most of them have outlived their utility. Many of these started breaching or collapsing from the 1990s, more seriously from the 2000s.
  - **Massive deforestation in catchment areas** of rivers or release of waters by dams upstream.
  - **Climate change** is also a factor behind floods.

- **Floods in Kaziranga's Ecosystem:**
  - Experts believe that **floods are necessary for Kaziranga** by virtue of its **riverine ecosystem.** The system won't survive without water.
    - **Kaziranga National Park and Tiger Reserve (KNPTR)** is sandwiched between the Brahmaputra river and the Karbi Anglong Hills. The entire area is formed by alluvial deposits from the Brahmaputra and its tributaries.
  - The regenerative nature of floods **helps replenish Kaziranga's water bodies and maintain its landscape,** which is a mix of **wetlands, grasslands and semi-evergreen deciduous forests.**
  - The floodwaters **function as a breeding ground for fish,** which are carried away by the receding waters into the Brahmaputra. i.e the Kaziranga's floods replenishes the Brahmaputra's stock of fish.
  - The waters also help **get rid of unwanted plants such as water hyacinth** which collect in huge masses in the landscape.
- **Issues Involved:**
  - **Frequent Floods:** Earlier, a big flood would come once in ten years, now they come every other year.
  - **NH-37:** When the flood water hits a certain level, the animal moves towards safer, higher ground in the Karbi Anglong hills. However, they have to cross NH-37 which cuts across the park, which leads to the killing of animals in road accidents.
    - Animals are also killed by poachers who take advantage of their vulnerability.
  - **Human-animal Conflict:** Animals also move towards villages in floods, this leads to **human-animal conflict.**
- **Steps taken during Floods:**
  - The authorities keep a track of updates from the **Central Water Commission**, and **monitor water levels** of the Brahmaputra tributaries upstream in Arunachal Pradesh.
  - **Camps are organised to create awareness** against poaching and harming wild animals that are rendered vulnerable during the floods."
  - When the floods hit, **Section 144 of CrPC** is imposed along NH-37, speed limits are enforced and fines levied. Barricades are also placed to help animals cross over to Karbi Anglong.

Way Forward

- In the absence of long-term alternatives, the government has to **invest in strong, durable embankments** to ensure that the situation does not deteriorate every year.

- Kaziranga, with its **rich grassland habitats,** has a primary role to play in supporting the wildlife populations.
- **Emphasis needs to be put on securing animal corridors** and ensuring a safe passage to the Karbi hills.
- **Need for a landscape-scale conservation approach** that recognises the value of the Karbi Anglong hills.
  - The highlands of Karbi Anglong, where the animals take refuge, are the lifeline of the park during the floods.

Source: IE

MP's Claims for Basmati GI Tag

Why in News

Recently, the **All India Rice Exporters' Association** (AIREA) has appealed to the government to preserve and protect the integrity of **Basmati rice**, following Madhya Pradesh (MP) government's pressure on the central government for seeking **Geographical Indication (GI) tag** for Basmati produced in 13 districts of MP.

> AIREA argues that if MP is included in the GI list of Basmati crop then it will harm the reputation of Indian Basmati as well as the national interest.

Key Points

- **Geographical Indication Tag:**
  - According to the **Agricultural and Processed Food Products Export Development Authority** (APEDA), it is given to an agricultural, natural or a manufactured product, originating from a specific geographical area due to which it possesses unique characteristics and qualities.
  - GI tag is kind of a **trademark in the international market** and an assurance that the product is coming from that specific area.

- **Basmati and GI tag:**
  - India is the only producer of premium Basmati and it has been grown from time immemorial in the **Indo-Gangetic Plains** (IGP) area of India and 18 districts of Pakistan's Punjab.
    - It had been a tough battle for the country to protect Basmati name from the encroachment of various nations which all came out with their own versions of Basmati.
  - APEDA got GI tag for the region located in IGP below the foothills of the Himalayas, spread across **seven states (Himachal Pradesh, Jammu and Kashmir, Punjab, Haryana, Uttarakhand, Western Uttar Pradesh (26 districts) and Delhi)** in May 2010.
  - **Reasons Given:** The **origin and reputation** of Basmati rice as a 'long-grain, aromatic rice' from the IGP is **found in tradition, folklore, scientific and culinary literature and political-historical records.**
    - Dehraduni Basmati, Amritsar Basmati and Tarawari Basmati are few varieties which have become famous over the period of hundreds of years.
- **Claims and Efforts Made by Madhya Pradesh:**
  - MP claims that **its rice possesses the same characteristics and qualities** as that of the rice grown in the IGP.
  - It also claims that **nearly 80,000 farmers** of the state are growing Basmati in **13 districts** and **exporting worth Rs. 3,000 crore annually.**
  - MP appealed in Madras High Court where its plea was rejected in February 2020.
    - In 2016, **Intellectual Properties Appellate Board** (IPBA) in **Chennai** had given the decision in favour of the APEDA.
    - Despite these orders, MP has been repeatedly agitating and raising banter through political and bureaucratic channels.
- **Basis of Rejection:**
  - Under the **World Trade Organisation**'s **Trade-Related Aspects of Intellectual Property Rights (WTO TRIPs) agreement,** physical attributes are not enough for a product to earn a GI tag.
  - As per the **Goods (Registration and Protection) Act in 2003**, 'reputation' to a geographical area is central to the recognition of a GI product and only seven states have that reputation.
    - MP falls in the **Madhya Bharat Pathar (plateau)** and started cultivation of varieties of Basmati rice only around the middle of the first decade of this century.
    - Even if the rice grown in MP has all the required characteristics it would not still entitle such rice to qualify as Basmati.

- **Possible Effects of Inclusion of MP in GI list:**
    - It will **nullify APEDA's efforts to secure and protect Indian Basmati** since 1995 by taking up over 1,000 legal actions in nearly 50 countries. APEDA has spent around Rs. 250 crores in promoting Basmati rice, defending its GI status and shaping it into a global brand.
    - If MP gets permission, **Pakistan and China will grab the opportunity** to start sowing Basmati. **All those 50 and more nations who had been restricted** from calling any of their aromatic rice with even 'Basmati-like' names will also **start growing it and contend for its status.**
    - It will **deprive over 20 lakh farmers of seven states from the economic premium** of growing this unique product. Therefore, the commercial considerations cannot be sacrificed for expanding the area of GI.

Source: IE

Global Multidimensional Poverty Index 2020

Why in News

Recently, **Global Multidimensional Poverty Index 2020** was released by the **United Nations Development Programme (UNDP)** and the **Oxford Poverty & Human Development Initiative (OPHI).**

The data of the index is based on the **study of poverty trends** in 75 countries.

Key Points

- **Global Scenario:**
    - **1.3 billion** people are still living in multidimensional poverty. More than **80% are deprived in at least five** of the ten indicators used to measure health, education and living standards in the global MPI.
    - The **burden of multidimensional poverty disproportionately falls on children** - half of multidimensionally poor people are children under age 18.
    - **65 out of 75 countries** studied significantly **reduced their multidimensional poverty levels between 2000 and 2019.**
    - About **84.3% of multidimensionally poor** people live in **Sub-Saharan Africa** and **South Asia.**
    - **67% of multidimensionally poor** people are in **middle-income countries.**
- **Indian Scenario:**
    - India **lifted as many as 270 million people** out of multidimensional poverty between 2005-06 and 2015-16.

- **Neighbourhood Scenario:** In **China,** 70 million people left multidimensional poverty between 2010 and 2014, while in **Bangladesh,** the numbers declined by 19 million between 2014 and 2019.
- **Impact of Covid-19:** <u>Covid-19</u> is having a profound impact on the development landscape.
    - The study finds that on average, **poverty levels** will be set back **3 to 10 years** due to **Covid-19.**
- **Sustainable Development Goals:** The index emphasises on measuring and monitoring progress under the goals to reach **'zero poverty by 2030-Goal 1 of the <u>SDGs'</u>.**

Multidimensional Poverty Index

- The Multidimensional Poverty Index was launched by the **UNDP** and the **OPHI** in **2010.**
- MPI is based on the idea that **poverty is not unidimensional** (not just depends on income and one individual may lack several basic needs like **education, health** etc.), rather it is **multidimensional.**
- The index shows the **proportion of poor people** and the **average number of deprivations** each poor person experiences at the same time.
- MPI uses three dimensions and ten indicators which are:
    - **Education:** Years of schooling and child enrollment (1/6 weightage each, total 2/6);
    - **Health:** Child mortality and nutrition (1/6 weightage each, total 2/6);
    - **Standard of living:** Electricity, flooring, drinking water, sanitation, cooking fuel and assets (1/18 weightage each, total 2/6)
- A person is **multidimensionally poor** if she/he is deprived in one third or more (means 33% or more) **of the weighted indicators** (out of the ten indicators). Those who are deprived in one half or more of the weighted indicators are considered living in **extreme multidimensional poverty.**
- MPI is significant as it recognizes poverty from different dimensions compared to the conventional methodology that measures poverty only from the income or monetary terms.

Way Forward

- The index with its information on both the **level and composition of poverty** – provides the data needed to pinpoint where and how poverty manifests itself. Therefore, it will incite action in **solidarity with the poor,** so that nations like India can **'build better'.**

- Reflecting **progress before the coronavirus pandemic,** it suggests that the progress is at risk and stake-holders need to **look beyond income** to tackle poverty in all its forms. Hence, there is a need to take action to redress the rise of under-nutrition and children leaving school.

Source: HT

Predicting Earthquakes

Why in News

According to a recently published study, researchers have **developed a new way to improve the prediction of earthquakes.**

Key Points

- **Earthquakes:**
  - Earthquakes **usually occur along faults** (fractures between rocks which can range from a few millimetres to thousands of kilometres).
  - When **two blocks of earth slip past one another, seismic waves are generated** in a short span of time and earthquakes occur.
    - The waves travel to the surface causing destruction and are difficult to predict, making it challenging to save lives.
- **Earlier Attempts:**
  - Scientists have attempted to recreate the faults and their sliding in laboratories to try and understand the conditions in them during earthquakes.
  - However, the **actual conditions are so complex** that it is **difficult to recreate** them with full accuracy which makes the prediction of earthquakes difficult.

- **New Method:**
  - Researchers have now used a **different approach** for earthquake prediction by trying to predict the **frictional strength** of **phyllosilicates.**
    - **Frictional Strength:** It is the force required to cause movement along a fault.
    - **Phyllosilicates:** Minerals in the form of thin plates found along the weakest part of the faults where earthquakes occur.
  - The researchers **analysed artificial fault zones on a microscopic scale to identify processes** that occurred during the experiment.
  - A **set of equations were then formulated to predict how the frictional strength of phyllosilicate changes,** along with a change in conditions such as **humidity** or the **rate of fault movement.**
  - This made it easier for modellers to **simulate fault movement in natural conditions, including earthquakes.**
  - The new model predicts that **movement along phyllosilicate-rich fault zones becomes more difficult as it becomes faster** and this has been consistent with experiments.
  - This behaviour of movement becoming more difficult **prevents earthquakes and suggests minerals other than phyllosilicates play an important role in causing earthquakes.**
  - However, **more work and research is needed to clearly explain** it and to understand the relation between the force that holds a fault together and the force needed to move the fault.

Seismic Waves

- Vibrations from an earthquake are categorised as **P (primary)** and **S (secondary) waves.** They travel through the Earth in **different ways and at different speeds.** They can be detected and analysed.
  - **P-waves:**
    - These are the **first waves** detected by **seismographs** (instruments used to detect and record earthquakes).
    - These are **longitudinal waves** which means they **vibrate along the same direction as they travel.**
    - Other examples of longitudinal waves include **sound waves** and **waves in a stretched spring.**
  - **S-waves:**
    - These waves arrive at the **detector after primary waves.**
    - These are **transverse waves** which means they vibrate at a right angle to the direction in which they travel.
    - Other examples of transverse waves include **light waves** and **water waves.**

- **Both types** of seismic waves can be **detected near the earthquake centre** but **only P-waves** can be detected **on the other side of the Earth.**
    P-waves can travel through solids and liquids (since they are longitudinal waves) whereas **S-waves can only travel through solids** (as they are transverse waves). This means the liquid part of the core blocks the passage of S-waves.
- The earthquake events are **scaled** either **according to the magnitude or intensity of the shock.**
    - The **magnitude scale** is known as the **Richter scale.** The magnitude relates to the **energy released** during the earthquake which is expressed in absolute numbers, **0-10.**
    - The **intensity scale or Mercalli scale** takes into account the **visible damage** caused by the event. The range of intensity scale is from **1-12.**

Source: DTE

ASPIRE Portal for Automotive Industry: ICAT

Why in News

The **International Centre of Automotive Technology (ICAT)** is developing a technology **platform for the automotive industry** called **ASPIRE - Automotive Solutions Portal for Industry, Research and Education.**

> The Portal is expected to help in developing a **strong and self-reliant automotive industry** in India which is in tune with the vision of **Make in India** and **Atmanirbhar** vision of the Government of India.

Key Points

- The Portal is being developed **in line with the initiative by the Department of Heavy Industry (DHI)** under the **Ministry of Heavy Industries & Public Enterprises.**
    DHI has taken an initiative to promote innovation and to develop the related ecosystem.
- **Objective:** To enhance the technological capability of Indian automotive sector through exchange of knowledge & expertise, in order to make them self reliant and to facilitate the growth of the automobile sector and overall socio-economic progress of the country.

- **Functioning:** It will facilitate the Indian auto industry, R&D institutions and academia (colleges & universities) to come together for R&D, technology development, shop floor/quality/warranty issue's resolution, expert opinions on issues involving technology advancements.

    The portal will also **host grand challenges** in line with the need of the industry as will be identified from time to time, for development of key automotive technologies.

International Centre for Automotive Technology

- ICAT is a leading world class automotive testing, certification and R&D service provider under the aegis of **NATRiP (National Automotive Testing and R&d Infrastructure Project),** Government of India.
    - **NATRiP is a fully Government of India funded project** with a total project cost of Rs. 3727.30 crore.
    - The vision is to **create state-of-art research and testing infrastructure** to drive India into the future of global automotive excellence.
- It was established in 2006 at **Manesar, Haryana.**

Source: PIB