

**ENVIRONMENT**

❖ **The new U.S. Bill on climate action**

❖ **CONTEXT:** On August 7, the U.S. Senate approved a Bill titled the Inflation Reduction Act (IRA) 2022, with a simple majority of 51 to 50. Vice President Kamala Harris cast her tie-breaking vote to aid the approval after the Senate was evenly divided. Even though all Republicans opposed the bill, the Democrats pushed through after a long debate taking advantage of the budget reconciliation process. The bill is a scaled-down version of President Biden's Build Back Better Act (BBBA), which failed to get approval from the Senate. The IRA has a special focus on climate, healthcare, and tax provisions to address inflation.

❖ **What are the climate change provisions?**

- The Bill marks the largest American investment aimed toward making the U.S. a leader in clean energy. It includes packages worth \$369 billion for the clean energy transition.
- It provides a tax deduction to low and middle-income households to go electric and seeks to lower the energy bills of American households. It also aims to bolster the domestic production of heat pumps and critical minerals. For disadvantaged low-income communities and tribal communities, the Bill provides funding to benefit from zero-emission technologies which reduce greenhouse gas emissions, enhance climate resilience, and mitigate risks from extreme heat.
- The Bill provides significant investment in renewable energy through heavy tax credits for wind and solar energy projects and electric vehicles. Additionally, the Bill imposes a tax on the largest and most profitable companies in order that they pay their fair share, without levying any taxes on households with income less than \$40,000 per annum.
- It also imposes a fee on methane leaks from oil and gas drilling.
- At the same time, the Bill also aims at more investments in fossil fuels.
- It seeks to expand oil and gas drilling, with the federal government offering land for onshore and offshore drilling as a prerequisite for developing renewable energy. Thus, it handcuffs the expansion of oil and gas with renewable energy development.

❖ **Why does the U.S. want to invest in addressing climate change?**

- The U.S is currently facing extreme climate threats. This includes heat waves, wildfires, cyclones, floods, and hurricanes that have become frequent and intense in the past few years. The ongoing floods in Kentucky triggered by heavy rainfall and the wildfires in California induced by dry lightning have become a major concern for the country. There is a link between extreme weather events and climate change.
- Additionally, President Joe Biden has also undertaken certain climate commitments. Climate action has been a priority since he came into office. In 2021, he committed to the new ambitious target of cutting emissions by 50-52% below 2005 levels by 2030 and signed a new methane deal to curb methane emissions from the oil and gas industry. He introduced the Build Back Better plan which was a multi-trillion deal with key provisions for climate change.
- In May 2022, the Biden administration revoked the Alaska oil and gas drilling lease sales in the backdrop of soaring fuel prices, a move that is consistent with its climate commitment.

❖ **Why are Republicans opposing the Bill?**

- The legislation faced criticism not only from Republicans but also from a section within the Democrats along with fossil fuel supporters, and climate advocates.
- The Republicans tried to delay the passage of the Bill in the Senate by introducing numerous amendments that criticised the Bill for its inability to curb inflation. All the amendments introduced failed except the one introduced by Senator John Thune on the exemption of some businesses from the minimum corporate tax. Democrat Senator Kyrsten Sinema supported John Thune's amendment to support her state Arizona's business-friendly approach.
- Within the Democrats, the party had to agree to some policy changes. Senator Joe Manchin was the major reason behind the failure of President Biden's BBBA in the Senate earlier. However, after constant deliberations, he agreed to support the current version which has more focus on reducing deficits.
- Fossil fuel supporters criticise the bill as it does not take into account the communities that are dependent on the fossil fuel industry for their income. A protest by the workers of a coal plant in the state of West Virginia was recorded after their own Senator Joe Manchin agreed to back the bill.
- Climate advocates criticise the bill for coupling the development of renewable energy, which is the cause of global warming, with land leasing for oil and gas drilling. The Bill still contains giveaways to the fossil fuel sector.

❖ **How does the Bill help the U.S. achieve its climate targets?**

- The Bill being the largest-ever investment in addressing the climate crisis in U.S. history, will help the nation get closer to its climate target of reducing 50-52% emissions below 2005 levels by 2030.

- According to an estimate by the Rhodium Group, the investments in the Bill could reduce greenhouse gas emissions by 31 to 44% by 2030.
- The Bill can help the U.S. compete with China in terms of renewable production as China is a leading producer of solar energy. It can also facilitate the creation of domestic jobs.
- Thus, the Bill can prove to be a turning point for global climate action as the U.S. is one of the largest emitters of greenhouse gases globally. However, it does not address any issues of global climate finance which is a major impediment to global climate action. It is a mere step toward achieving the climate target agreed upon in the Paris Agreement, where Article 2 states global temperature should be limited below 2°C.
- Even though the Bill is not enough to address the climate crisis, such historic initiatives by global leaders in greenhouse gas emissions can be a benchmark for other large emitters to push their climate action programmes.
- ❖ **Have similar climate packages been announced by other countries?**
- In May 2022, Japan announced its 'Invest in Kishida' plan which aims for a \$1.1 trillion investment to bolster the Japanese economy. As part of the plan, the country aims to transition to clean energy and achieve 46% reduction in greenhouse gas emissions by 2030. In June 2021, the European Union (EU) proposed a similar 'Fit for 55' plan to reduce emissions by 55% by 2030. The plan is expected to become law soon. Being the largest emitters, both the U.S. and the EU can play a significant role in taking responsibility for historical emissions.

### GOVERNANCE

- ❖ **The uproar over the Electricity (Amendment) Bill, 2022**
- ❖ **CONTEXT: Ignoring the objections of the Opposition, the Samyukt Kisan Morcha (SKM) and the trade unions, the Union Power Ministry introduced the Electricity (Amendment) Bill, 2022 in Lok Sabha on August 8. Union Power Minister R.K. Singh said at the stage of introduction that the Bill could be moved to the Energy Standing Committee of Parliament for broader consultations. The Opposition questioned the introduction of the Bill.**
- ❖ **What is the history of the Bill?**
- The Electricity Bill was brought for the first time and passed in Parliament in 2003, when A. B. Vajpayee was the Prime Minister. The intention was to consolidate the laws relating to generation, transmission, distribution, trading and use of electricity.
- The Act also offered to protect the interest of consumers and supply of electricity to all areas, rationalisation of electricity tariff, transparent policies regarding subsidies etc.
- The Act resulted in privatisation of distributing companies. It was amended in 2007 by the UPA Government, apparently under pressure from the Left parties.
- The provisions for "cross subsidy" — ensuring subsidy to poor households was added to the Bill in 2007.
- There were attempts to amend the Bill further in 2014, 2017, 2018, 2020 and 2021. While the 2014 Bill was cleared by the Standing Committee on Energy, it could not be passed in the House as the Centre wanted to revise it.
- None of the other draft Bills came to Parliament as the Centre was not satisfied with the primary response it received after consultations with stakeholders. All of those Bills remained in their draft form.
- ❖ **Why is there opposition to the Bill?**
- The opposition to the Bill is primarily from farmers' groups as they fear that the Bill will lead to stopping subsidies and that power distribution will thereafter be under the control of private companies.
- The workers in the power sector also oppose the Bill citing that privatisation of distribution companies and generating units will result in job losses. When the Central trade unions started a campaign against the Act, the SKM pledged support.
- The Opposition parties questioned the Bill on federalist principles. Opposition argued that in the House that power or electricity is a subject which comes under the Concurrent List of the Constitution, and that the Centre should have consulted the States before bringing the Bill. The Bill paves way for privatisation of profits and the nationalisation of losses.
- ❖ **What are the main amendments to the Act?**
- Compared to the drafts of 2020 and 2021, the Electricity Act (Amendment) Bill of 2022 has a number of changes. The main change among them could be the proposal for the Centre's intervention in the area of power distribution, a domain under the State governments. Such provisions can be seen in clauses 5, 11, 12, 13, 15 and 23 of the Bill. Clause 5 amends Section 14 of the parent Act that deals with the criteria for electricity distributors. The amendment empowers the Central Government to prescribe the criteria.

- Another clause that causes worry for those who oppose the Bill is Clause 11, which seeks to amend section 42 of the principal Act to facilitate operation of multiple distribution licensees in the same area and to avoid parallel network and optimise usage of the distribution network.
- Similarly, Clause 13 seeks to amend section 60 of the principal Act to enable management of power purchase and cross subsidy in case of multiple distribution licensees in the same area of supply. It says in case of issuance of licence to more than one distribution licensee in an area of supply, the State Government shall set up a cross subsidy balancing fund which shall be managed by a government company.

### PRELIMS

#### 1. What is Langya, the new zoonotic virus that has infected 35 people in China?

##### ❖ **CONTEXT: China New Langya Virus, 35 People Infected: At least 35 people have been found infected with Langya virus in Shandong and Henan provinces of China.**

- Langya Henipavirus: Almost three years after the novel corona virus was detected in China, a new zoonotic virus has been discovered in the country's two eastern provinces with 35 infections identified so far. This new type of Henipavirus is also being called Langya Henipavirus or the LayV.
- Henipaviruses are classified as biosafety level 4 (BSL4) pathogens. They can cause severe illness in animals and humans, and as of now there are no licensed drugs or vaccines meant for humans.

##### ❖ **What is Langya virus?**

- The newly discovered virus is a "phylogenetically distinct Henipavirus", according to a recent study — A Zoonotic Henipavirus in Febrile Patients in China.
- The types of Henipaviruses that had been identified prior to this included Hendra, Nipah, Cedar, Mojiang and the Ghanaian bat virus.
- According to the US CDC, the Cedar virus, Ghanaian bat virus, and Mojiang virus are not known to cause human disease. But Hendra and Nipah infect humans and can cause fatal illness.
- Langya, meanwhile, is known to cause fever.
- The study adds that Langya's genome organization is "identical to that of other Henipaviruses", and that it is closely related to the "Mojiang Henipavirus, which was discovered in southern China".

##### ❖ **How was Langya virus discovered?**

- Langya was discovered in eastern China during surveillance testing of patients who had fever along with a recent history of animal exposure. It was identified and isolated from the throat swab sample of one of those patients. According to the study, 35 patients with LayV infection were found in Shandong and Henan provinces, out of which 26 were only infected with this new virus and no other pathogen.

##### ❖ **What are the symptoms of Langya virus?**

- The study looked at the 26 patients with only LayV infection to identify the associated symptoms. While all 26 had fever, 54% reported fatigue, 50% had cough, 38% complained of nausea. Also, 35% of the total 26, complained of headache and vomiting.
- The study found that 35% had impaired liver function, while 8% had their kidney function impacted. The patients were accompanied by abnormalities of "thrombocytopenia (35%), leukopenia (54%), impaired liver (35%) and kidney (8%) function. Thrombocytopenia is low platelet count, while leukopenia means a fall in the white blood cell count, in turn reducing the body's disease-fighting capability.

##### ❖ **Where has Langya virus come from?**

- In all likelihood, the new virus has jumped from an animal to humans. The LayV virus RNA has been predominantly found in shrews, which may be its natural hosts. The study zeroed in on shrews after conducting a serosurvey of domestic and wild animals. Among domestic animals, seropositivity was detected in goats and dogs.

##### ❖ **What about human-to-human transmission?**

- There are no clear answers yet. The study have underlined that the sample size of their investigation is too small to determine human-to-human transmission. However, the study point out that among the 35 patients infected by LayV, there was "no close contact or common exposure history", which suggests that the "infection in the human population may be sporadic".

#### 2. National Children Fund

- The National Children's Fund (NCF) or the Rashtriya Bal Kosh was set up in the International Year of the Child (1979) under the Charitable Endowment Act 1890.
- The secretariat of the fund is located in National Institute of Public Cooperation and Child Development (NIPCCD), an autonomous body under the aegis of the Ministry of Women and Child Development.
- The NCF raises funds from individuals, institutions, corporates and others for the welfare and development of programme for children.
- The NCF has limited funds because of which it is not implementing a large-scale countrywide grant-in-aid programme.

- The objectives of the scheme are as follows,
  - Improve the academic performance of children living in CCIs run as per the Juvenile Justice Act, 2015;
  - Enable children to inculcate a sense of self-dependence and confidence in their innate ability and capacities to take on the challenges, the future would hold before them; and
  - Create an enabling atmosphere by providing equitable opportunities and further the pursuit of excellence in life.
- The NCF's mandate is to provide financial assistance to arrest the discontinuation of education of talented and meritorious children of Child Care Institutions (CCIs) due to economic hardship.
- This will be done by providing scholarship support for pursuing their academic goals, leading to an improved quality of life in future.
- **Status** - The Fund is reaching out to the designated target population through Grants-in-Aid to voluntary agencies until 2016 and through Scholarships to children living in the CCIs.
- From 2017 onwards, the NCF has continued only scholarships for children living in the CCIs.
- The National Policy for Children, announced in 1974 recognises children of the Nation as a 'Supremely important asset'.

### 3. **Vasculitis**

- Vasculitis is a general term for several conditions that cause inflammation of blood vessels.
- It is also called angiitis ("inflammation within blood vessels") or arteritis ("inflammation in arteries").
- It is an auto-immune disease in which the body's immune system turns on healthy blood vessels, causing them to swell up, narrow down, stretched, or weak. The blood vessels might close entirely.
- The trigger for vasculitis may be an infection or a drug or blood cancers or immune system diseases, although the precise reason is often uncertain or unknown.
- Vasculitis can be only a minor problem affecting the skin, or it can be a serious condition that impacts the heart, kidneys or other vital organs.
- Types of Vasculitis - There are around 20 different disorders that are classified as vasculitis.
- Although the diseases are similar in some ways, they often differ with respect to which organs are affected, which medications are used to treat them, and other characteristics.
- Different types of inflammation cause different diseases, which have their own symptoms and treatment protocols.
- Steroids are frequently prescribed, as are some other medicines that reduce the activity of the immune system.
- ❖ **Diseases associated with Vasculitis**
  - Behcet's Disease - Oral and genital ulcers and eye inflammation
  - Buerger's Disease - Mainly affects smokers and leads to decreased flow of blood to the hands and feet.
  - Eosinophilic granulomatosis with polyangiitis or Churg-Strauss Syndrome - Associated with asthma, sinusitis, and tends to involve the lungs, kidneys, and heart as well

### 4. **Him Drone-a-thon' programme**

- ❖ **CONTEXT:**The Indian Army in collaboration with the Drone Federation of India has launched the 'Him Drone-a-thon' programme.
  - Program is aimed to catalyse and provide focused opportunities to the Indian drone ecosystem to develop path-breaking drone capabilities for meeting requirements of frontline troops.
  - The 'Him Drone-a-thon' programme is a pan India sustained connection between all stakeholders including industry, academia, software developers and drone product manufacturers.
- ❖ **Significance:**
  - This initiative is in line with Make in India in defence manufacturing.
  - The Indian Army's support to the indigenous drone ecosystem is based on the principle that 'good available indigenously' is better than the 'best available globally'.
  - The indigenous industry has adequate expertise to develop world class products in this field.
  - India has largely prohibited import of drones and import of drone components are exempted to encourage domestic drone manufacturing. It is to incentivise domestic drone manufacturers and boost investments.
- ❖ **India's drone arsenal**
  - Heron - Israel
  - Predator - USA
  - Sea Guardian - USA
  - Fire-Fly 'loitering munition' - Israel
  - Harpy and Harop loitering munition - Israel
  - Rustom - 2 - India

- CATS Warrior - India
- 5. **SMILE-75 Initiative**
- In the spirit of Azadi Ka Amrit Mahotsav, the Ministry of Social Justice & Empowerment, Government of India, has identified 75 Municipal Corporations to implement comprehensive rehabilitation of persons engaged in the act of begging under “SMILE: Support for Marginalised Individuals for Livelihood and Enterprise” named as “SMILE-75 Initiative”.
- The “SMILE-75 Initiative” will be launched by Union Ministry of Social Justice & Empowerment. The identified 75 Municipal Corporations, experts from the field of beggary and eminent NGOs will participate in this nationwide launch through online and offline mode.
- Under the SMILE-75 initiative, seventy five (75) Municipal Corporations in collaboration with NGOs and other stakeholders will cover several comprehensive welfare measures for persons who are engaged in the act of begging with focus extensively on rehabilitation, provision of medical facilities, counselling, awareness, education, skill development, economic linkages and convergence with other Government welfare programmes etc.
- The Ministry of Social Justice & Empowerment has allocated a total budget of Rs.100 crore for the SMILE project for coming years till 2025-26. Through this project, the Ministry envisions to develop a support mechanism for holistic rehabilitation of those engaged in the act of begging and build an India where no person is forced to beg in order to survive and fulfill their basic needs.
- The objective of SMILE-75 is to make cities/town and municipal areas begging-free and make a strategy for comprehensive rehabilitation of the persons engaged in the act of begging through the coordinated action of various stakeholders.

**ANSWER WRITING**

**Q. Early Buddhist Stupa-art, while depicting folk motifs and narratives successfully expounds Buddhist ideals, Elucidate.**

In Buddhism, the earliest stupas contained portions of the Buddha’s ashes, and as a result, the stupa began to be associated with the body of the Buddha.

- Buddha had asked pupils to place the relics “where four roads meet”. This is probably to indicate the openness and universality of the Buddhist teaching, which invites all to come and try its path, and also to radiate loving-kindness to beings in all four directions.
- Stupas contain intricate lotus designs which symbolises the potential for spiritual growth latent in all beings, and the complete non-attachment of the enlightened mind, which stands beyond all defilements
- Stupa is an image of the creation of the universe (the archetype of regeneration), with the stupa axis founded on the waters and rising through the earth, atmosphere and heavens so as to unite them and form a communicating link between them.
- The shape of the stupa represents the Buddha, crowned and sitting in meditation posture on a lion throne.
- While stupas have changed in form over the years, their function remains essentially unchanged. Stupas remind the Buddhist practitioner of the Buddha and his teachings almost 2,500 years after his death.
- The most elaborate stupa in Java contained Buddha images symbolizing Arûpajhâna, the sphere of formlessness. The main stupa itself is empty, symbolizing complete perfection of enlightenment.
- Thus the art and architecture associated with Buddhism symbolized the Buddhist ideals.

**MCQs**

1. Consider the following pairs
    1. Heron – Israel
    2. Gray eagle – USA
    3. CATS Warrior – India
    4. Hermes 450 - Israel
- How many above pairs are correctly matched
- a) Only two pairs
  - b) Only one pair
  - c) Only three pair
  - d) **All the four pairs**
2. With reference to SMILE - 75 initiative consider the following statements
    1. The initiative is initiated by ministry of social justice and empowerment.
    2. The initiative is aimed at urban slum development.
- Which of the above statement/s is/are correct?
- a) **1 only**
  - b) 2 only
  - c) Both 1 and 2
  - d) Neither 1 nor 2

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3. Which of the following diseases are associated with Vasculitis
- Behcet's Disease
  - Buerger's Disease
  - Churg-Strauss Syndrome
  - All of the above**
4. 'Invest in Kisida' plan often mentioned in news is associated with which of the following country?
- USA
  - Japan**
  - Australia
  - Nepal
5. Which of the following statements is / are correct?
- Viruses lack enzymes necessary for the generation of energy.
  - Viruses can be cultured in any synthetic medium.
  - Viruses are transmitted from one organism to another by biological vectors only.

Select the correct answer using the codes given below.

- 1 only
  - 2 and 3 only
  - 1 and 3 only**
  - 1, 2 and 3
6. India recently signed a Film treaty with which of the following country?
- Australia**
  - Philippines
  - USA
  - UK
7. Consider the following statements

- The National Children's Fund (NCF) was set up as a statutory fund under the Charitable Endowment Act 1890.
- The scholarship scheme UNNATI is being implemented under the fund.

Choose the correct statement/s using the codes given below

- 1 only
- 2 only**
- Both 1 and 2
- Neither 1 nor 2

8. Clofazimine, recently seen in the news, is related to which of the following diseases?

- Diabetes
- Malaria
- Dementia
- Leprosy**

9. 'Him Drone-a-thon' programme recently seen in news associated with which of the following country?

- USA
- UK
- India**
- Israel

10. With reference to Vice President of India, consider the following statements:

- The Vice-President of India is elected by an electoral college consisting of members of Rajya Sabha only.
- The Election Commission of India conducts the election to the office of the Vice-President.
- All doubts and disputes arising in connection with the election of the Vice-President are enquired by the Supreme Court of India.

Which of the statements given above is/are correct?

- 1 and 2
- 2 only
- 1 and 3
- 2 and 3 only**