

04-04-2022

Bamiyan Buddhas**Why in Newspapers?**

The Taliban regime in Afghanistan assured the world of its intention to protect and preserve the Buddhist heritage at Mes Aynak.

Quick Issue?

- The earlier Taliban regime destroyed many Buddhist related ancient sculptural and architectural treasures at Mes Aynak (2001). This naturally created fear among many people when the Taliban regime came back to power.
- However, the regime has assured the world of its intention to preserve the diverse Buddhist heritage. One of the primary reasons behind this is to ensure investment in the country as this regime has been facing economic difficulties since coming to power.

**Historical Background?**

- The Bamiyan Valley lies along the Bamiyan River, in the Hindu Kush Mountains, and was a major node of the early silk routes, emerging as a centre of both commercial and cultural exchange.
- The Bamiyan Buddha statues carved out of sandstone cliffs are said to date back to the 5th century AD and were once the tallest standing Buddha in the world.

OTHER IMPORTANT FACTS?**Gandhara Art**

- The Gandhara style is also known as the frozen-Buddhist style. The maximum development took place during the Kushan period. The lore of this period was the creation of wealth - Roman, taken from the Buddhist tradition. For example, the Buddhist hair style has been retained. Beautiful as style.
- The Buddha in the Gandhara style resembles that of the pollution god Apollo. What it looks like is "toga". Examples of Gandhara art are in Hadd and Ju in the century of Sin AD. These are excellent from the point of view of art. Bone perishable and late-stage information technology and information technology.
- Dhar Kala is also a centre of Thuthu Bhagavan (or pure) art in India. Visual-Analysis-Visual-Analysis-Visual-Analysis-Visual-Visual-Detail is to enter.
- After using this art, many false perceptions from Bodhisattvas, Buddha's Mudra Chakra, Abhaya Mudra, Mudra Mudra and Varada Mudra etc.



- These sculptures were examples of a perfect blend of Gupta, Sassanian and Hellenistic artistic styles.
- Salsal and Shamana (two of the tallest Buddha statues in the area), called by the locals, were demolished by the Taliban regime in 2001.
- In 2003, UNESCO included the relics of the Bamiyan Buddhas in the list of World Heritage Sites.
- On March 9, 2021, to mark 20 years of his destruction, Salsal's statue was "rebuilt"—a 3D projection was created on the alcove where he stood.

Likely Question Asked in Preliminary Exam

Question: Consider the following statements:

1. The Salsal and Shamana (two of the tallest Buddha statues in the area), called by the local people, were demolished by the Taliban regime in 2001.
2. In 2003, UNESCO included the relics of the Bamiyan Buddhas in the list of World Heritage Sites.
3. On the completion of 20 years of his destruction, on March 9, 2021, Salsal's statue was 'rebuilt' - a 3K projection was made on the alcove where he had stood.

Code:

(A) 01 and 02

(B) 02 and 03

(C) 01 and 03

(D) All of the above

Answer – (D) All of the above

Possible Questions to be Asked in Mains Exam

Question 1 - How can the world achieve the overall objective of protecting and preserving the rich heritage in areas ravaged by wars and civil conflicts? discuss –



Gene Editing

Why in Newspapers?

Recently the government has allowed genome-edited plants without the cumbersome 'GMO' (genetically modified organism) regulation before the Genetic Engineering Evaluation Committee (GEAC).

Quick Issue?

- The government has exempted 'Site Directed Nucleases' (SDN) 1 and 2 genomes from Rule 7-11 of the Environment Protection Act, thus leading to a long process for approval of such GM crops through the Genetic Engineering Appraisal Committee (GEAC). process will be allowed to escape.
- Under the Environment Protection Act, the Institutional Biosafety Committee (IBSC) will now be tasked with certifying that the genome editing crop is devoid of any foreign DNA.

Historical Background?

- Gene editing (also called genome editing) is a set of technologies that provide scientists with the ability to modify the DNA of an organism.
- These technologies are helpful in adding, removing or changing genetic material at particular locations in the genome.
- Advanced research has helped scientists develop protein-based systems involving highly effective Clustered Regularly Interspaced Palindromic Repeats (CRISPR). This system enables targeted interference in the genome sequence.
- This strategy has uncovered various possibilities in plant breeding. With the help of this system, agricultural scientists can now edit/edit the genome to incorporate specific traits into the gene sequence.
- Based on the nature of editing, the entire process is divided into three categories - SDN1, SDN2 and SDN3.

OTHER IMPORTANT FACTS?

Genetic Engineering Evaluation Committee:

- It works under the Ministry of Environment, Forest and Climate Change (MoEF&CC).
- It is responsible for evaluating activities involving large-scale use of hazardous microorganisms and recombinants in research and industrial production from an environmental point of view.
- The committee is also responsible for the evaluation of proposals relating to genetically modified organisms and products in the environment, including experimental field trials.
- The GEAC is headed by a Special Secretary/ Additional Secretary, MoEF&CC and is co-chaired by a representative of the Department of Biotechnology (DBT).



- Site directed nuclease (SDN) 1 initiates changes in the DNA of the host genome through small insertions/deletions without the introduction of foreign genetic material.
- Editing under SDN2 involves using a short DNA template to produce specific changes. Both these processes do not involve foreign genetic material and the end result is similar to that of conventionally bred crop varieties.
- The SDN3 process involves large DNA elements or full-length genes of foreign origin making it similar to the development of genetically modified organisms (GMOs).

Likely Question Asked in Preliminary Exam

Question: Consider the following statements:

1. Gene editing (also called genome editing) is a set of technologies that provide scientists with the ability to modify the DNA of an organism.
2. These technologies are helpful in adding, removing or changing genetic material at particular places in the genome.
3. Advanced research has helped scientists develop highly effective Clustered Regularly Interspaced Palindromic Repeats (CRISPR) linked protein-based systems. This system enables targeted interference in the genome sequence.

Code:

(A) 01 and 02

(B) 02 and 03

(C) 01 and 03

(D) All of the above

Answer – (D) All of the above

Possible Questions to be Asked in Mains Exam

Question-1 - Explain gene-editing technology? Discuss the benefits and challenges associated with the genomics revolution in the Indian context.

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