

UPSC Daily Current Affairs 12 Jul 2021

Islam Qala

(Topic- GS Paper II-Geography and IR, Source- The Hindu)

Why in the news?

- Recently, the Taliban have captured a major border crossing between Afghanistan and Iran known as Islam Qala crossing.

About Islam Qala



- It is known historically as Kafir Qala, is a border town in the western Herat province of Afghanistan, near the Afghanistan–Iran border.
- It is the official entry **by land from neighboring Taybad, Iran.**
- It plays an important role when it comes to the economy of Afghanistan because a lot of trade between Afghanistan and other countries passes through this town.
- It is one of the biggest trade gateways into Iran, generating estimated USD 20 million monthly revenue for the government.

Provide International Connectivity

- Asian Highway 1 (AH1) passes through the town, part of the Asian Highway Network leading from Tokyo, Japan to west of Istanbul where it connects to the E80 which reaches to Lisbon.

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Kesaria Buddha stupa

(Topic- GS Paper I-History, Source- The Hindu)

Why in the news ?

- Recently, the world-famous Kesaria Buddha stupa in east Champaran district of Bihar is waterlogged following floods in some parts of the district after heavy rainfall in the catchment areas of river Gandak in neighbouring Nepal.

About Kesaria Buddha stupa



- It has a circumference of almost 400 feet and stands at a height of about 104 feet.
- The first construction of the nationally protected stupa is dated to the 3rd century BCE.
- It is regarded as the largest Buddhist stupa in the world and has been drawing tourists from across several Buddhist countries.

Background

- The stupa's exploration had started in the early 19th century after its discovery led by Colonel Mackenzie in 1814.
- Later, it was excavated by General Cunningham in 1861-62 and in 1998 an ASI team led by archaeologist K.K. Muhammad had excavated the site properly.
- The original **Kesaria stupa is said to date back to the time of emperor Ashoka (circa 250 BCE) as the remains of an Ashokan pillar was discovered there.**
- The local people call the stupa "devalaya," meaning "house of gods".

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- The ASI has declared it a protected monument.


Uttar Pradesh New population policy

(Topic- GS Paper II-Governance, Source- The Hindu)

Why in the news?

- Uttar Pradesh Chief Minister has recently launched the State's population policy for 2021-2030.
- The policy comes at a time when the Uttar Pradesh State Law Commission has prepared the proposed draft Bill under which a two-child norm would be implemented and promoted.

Future planning | The Uttar Pradesh Population Policy 2021-2030 was launched to reduce maternal and infant deaths in a time-bound manner. The policy aims to:



<ul style="list-style-type: none"> ▪ Decrease the total fertility rate (number of children per woman) from 2.7 to 2.1 by 2026 and 1.7 by 2030 ▪ Increase modern contraceptive prevalence rate from 31.7% to 45% by 2026 and 52% by 2030 ▪ Increase male methods of contraception use from 10.8% to 15.1% by 2026 	<ul style="list-style-type: none"> ▪ Decrease maternal mortality rate (per 1,00,000 live births) from 197 to 150 by 2026 and 98 by 2030 ▪ Decrease infant mortality rate (per 1,000 live births) from 43 to 32 by 2026 and 22 by 2030 ▪ Decrease under 5 mortality rate (per 1,000 live births) from 47 to 35 by 2016 and 25 by 2030
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Baby steps: Yogi Adityanath encouraging a newly married couple to opt for family planning in Lucknow on Sunday. • PTI

Awareness and extensive programmes would be held among those communities, cadres and geographical areas that have a higher fertility rate

U.P. POPULATION POLICY

We should not forget that the increase in population contributes to poverty in society. Hence, until all sections are made comprehensively aware, there will be a delay in fulfilling various goals

YOGI ADITYANATH, UTTAR PRADESH CM

About the State's population policy for 2021-2030.

The new policy aims at

- Decreasing the total fertility rate from 2.7 to 2.1 by 2026 and 1.7 by 2030.
- Increase modern contraceptive prevalence rate from 31.7% to 45% by 2026 and 52% by 2030.
- Increase male methods of contraception use from 10.8% to 15.1% by 2026 and 16.4% by 2030.

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- decrease maternal mortality rate from 197 to 150 to 98
- Decrease infant mortality rate from 43 to 32 to 22.
- Under 5 infant mortality rate from 47 to 35 to 25.

Population stabilization

- It is a stage when the size of the population remains unchanged. It is also called the stage of zero population growth.
- Country level population stabilization occurs when births plus in-migration equals deaths plus out-migration.
- Thus, there is often a gap of a few decades between achieving replacement level fertility i.e. TFR of 2.1 (two children per couple) and population stabilization.
- As per National Population Policy, India has set itself the goal of achieving the larger goal of population stabilization by 2045.

Need for Population Stabilization

- According to the UN Department of Economic and Social Affairs estimates, India's population will reach 1.5 billion by 2030 and hit 1.64 billion in 2050.
- This would make India become the largest populous country, overtaking China.
- At present, India hosts 16% of the world's population with only 2.45% of the global surface area and 4% water resources.
- Globally, the debate over population explosion has erupted after recent ecosystem assessments pointed to the human population's role in driving other species into extinction and precipitating a resource crunch.

Constitutional Provision

- The freeze on the state-wise allocation of seats in Parliament until 2026 was extended through the Constitutional (84th Amendment) Act, 2002, to serve “as a motivational measure to pursue population stabilisation” — a goal which has not been achieved.
- In the absence of further extension, it will be politically destabilizing

Government initiatives

Targets under National Health Mission

- Reduce MMR to 1/1000 live births
- Reduce IMR to 25/1000 live births
- Reduce TFR to 2.1

The National Population Policy (NPP)

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- It was devised in the year 2000 with the immediate objective to address the unmet needs for contraception, health care infrastructure, and health personnel, and to provide integrated service delivery for basic reproductive and child health care.
- The mediumterm objective was to bring the TFR to replacement levels by 2010, through vigorous implementation of inter-sectoral operational strategies.
- The longterm objective is to achieve a stable population by 2045, at a level consistent with the requirements of sustainable economic growth, social development, and environmental protection.

National Commission on Population (NCP)

- The National Commission on Population (NCP) was constituted in May 2000, to fulfil the objectives of the National Population Policy 2000.
- The objectives of this commission are to review, monitor and give directions for the implementation of the National Population Policy (NPP) 2000.
- It aims to work in tandem with the goals outlined in the policy to promote inter-sectoral co-ordination, involve the civil society in planning and implementation, and facilitate initiatives to improve performance in the demographically weaker States in the country and to explore the possibilities of international cooperation in support of the goals set out in the National Population Policy.

Sirisha Bandla

(Topic- GS Paper III-Science and Technology, Source- The Hindu)

Why in the news?

- Recently, Sirisha Bandla, vice president of government affairs and research operations at Branson's Virgin Galactic.
- She became the third woman of Indian origin — after NASA astronauts Kalpana Chawla and Sunita Williams — to fly to space.



RELATED INFORMATION

ABOUT UNITY 22 MISSION

- **UNITY 22" WILL BE VIRGIN GALACTIC'S NEXT ROCKET-POWERED TEST FLIGHT OF ITS SPACESHIP- VSS UNITY.**
- **IT WILL BE THE FIRST TO CARRY A FULL CREW OF TWO PILOTS AND FOUR MISSION SPECIALISTS IN THE CABIN, INCLUDING VIRGIN GROUP FOUNDER RICHARD BRANSON, WHO WILL BE TESTING OUT THE PRIVATE ASTRONAUT EXPERIENCE.**

OBJECTIVES OF THE MISSION:

- **IT WILL FOCUS ON TESTING THE CABIN AND CUSTOMER EXPERIENCE.**
- **THEREAFTER, SHE TRAVELLED TO HOUSTON TO JOIN HER PARENTS IN THE UNITED STATES. SIRISHA'S PARENTS, WHO ARE US GOVERNMENT EMPLOYEES, ARE CURRENTLY POSTED IN INDIA.**

About Space tourism

- Space tourism is about humans travelling into space for recreational purposes.
- It seeks to give laypeople the ability to go to space for recreational, leisure or business purposes.
- It will make space more accessible to those individuals who are not astronauts and want to go to space for non-scientific purposes.

Private Companies involved

- Three private companies - Blue Origin, Virgin Galactic and SpaceX are now spearheading the human endeavour to explore space.

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- Their progress will decide whether space travel will one day become as accessible as air travel.

Himalayan yaks to be insured

(Topic- GS Paper III-Environment Source- The Hindu)

Why in the news ?

- Recently the National Research Centre on Yak (NRCY) at Dirang in West Kameng district, Arunachal Pradesh, has tied up with the National Insurance Company Ltd. for insuring their Yaks.
- The insurance policy would shield the yak owners against the risks posed by weather calamities, diseases, in-transit mishaps, surgical operations and strikes or riots.

About Wild Yak (*Bos grunniens*)

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- These are endemic to the Tibetan Plateau and the adjacent high-altitude regions.

Conservation Status

- IUCN Red list status: Vulnerable
- Listed under Appendix I of CITES
- Indian WildLife (Protection) Act of 1972: Schedule II

Giant pandas

(Topic- GS Paper III-Environment Source- The Hindu)

Why in the news?

- Recently the IUCN classification of Giant pandas is changed to **vulnerable from endangered**.
- The new classification comes years after the International Union for Conservation of Nature (IUCN) had **already removed the animal from its endangered species list and re-labelled it as vulnerable in 2016**.

About Giant panda

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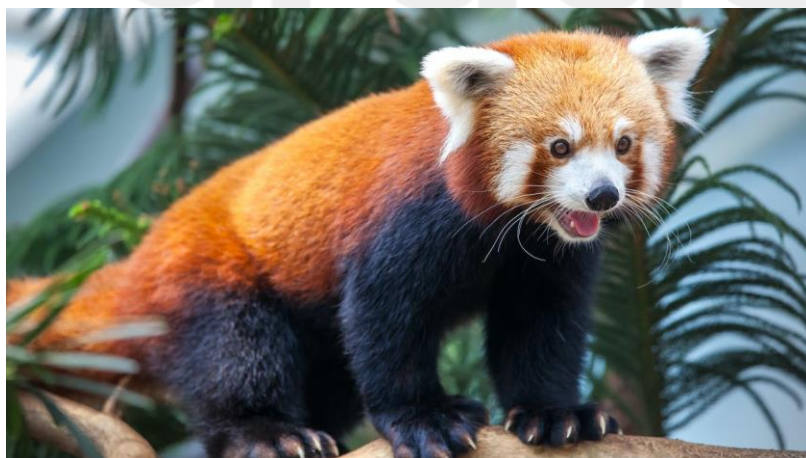
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- The giant panda also known as the panda bear.
- It is **native to South Central China**.
- The giant panda is a folivore, with bamboo shoots and leaves making up more **than 99% of its diet**.
- The giant panda lives in a few mountain ranges in central China, mainly in Sichuan, but also in neighbouring Shaanxi and Gansu.

Related Information

About Red Panda



- The red panda is a small reddish-brown arboreal mammal.
- **It is also the state animal of Sikkim.**

Conservation Status

- It is listed as **Endangered** in the IUCN red list of Threatened Species.
- It is protected under Schedule I of the Indian Wildlife (Protection) Act, 1972.

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- It is found in the forests of India, Nepal, Bhutan and the northern mountains of Myanmar and southern China.

Woman infected with two variants

(Topic- GS Paper III-Science and Technology, Source- The Hindu)

Why in the news?

- Recently, a 90-year-old woman who died after falling ill with COVID-19 was infected with both the Alpha and Beta variants of the coronavirus at the same time and also two cases of COVID Kappa variant found in U.P

Related Information

- The Alpha, Beta, Gamma and Delta – which have been designated as “variants of concern”, and are considered a bigger threat.
- These were all recently named after letters of the Greek alphabet to avoid linkage with the country of their origin that had been happening until then.

Kappa variant of COVID-19

- It is one among three sub-lineages of lineage B.1.617. It is also known as lineage B.1.617.1, carrying E484Q mutations.
- It was first detected in December 2020 in India. Kappa accounted for more than half of sequences being submitted from India by March 2021.
- As per WHO Weekly Epidemiological Update, 34 countries had reported cases of this sub variant.
- By May 2021, number of countries had increased to 41. United Kingdom had detected 418 confirmed cases of SARS-CoV-2 Kappa variant as of May 2021.

Delta variant

- This variant is also known as B.1.617.2.
- This variant was first discovered in India. It is descendant of lineage B.1.617. British scientists declared B.1.617.2 as “variant of concern” on May 6, 2021.

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- It spreads more quickly than original version of virus and can spread as quickly as Alpha. It carries T478K, L452R and P681R mutations.

Further Reading: refer DCA of 7th July 2021

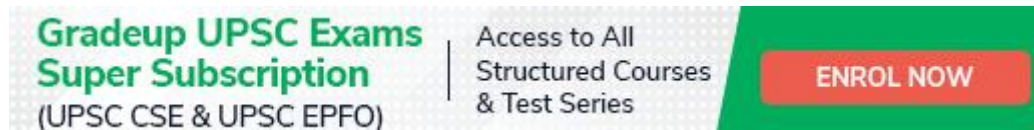
2020 Millennium Technology Prize

(Topic- GS Paper III-Science and Technology, Source- The Hindu)

Why in the news?

- Recently, the 2020 Millennium Technology Prize, announced in May, has been awarded to Shankar Balasubramanian and David Klenerman, “for their development of revolutionary DNA sequencing techniques.”

About Millennium Technology Prize



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- TAF started operating under the name of the Finnish Technology Award Foundation in 2003.
- In 2005, the name changed to the Millennium Prize Foundation.
- The name was changed to the Technology Academy Finland in 2008.
- It has been awarded at two-year intervals since 2004.
- Past winners include Tim Berners-Lee (for implementing the world-wide web) and Frances Arnold (for her work on directed evolution in a laboratory setting).
- Three of the eleven awardees so far have subsequently won Nobel prizes.

Soberana 2 vaccine

(Topic- GS Paper III-Science and Technology, Source- The Hindu)

Why in the news?

- Cuba's State-run corporation, BioFarma, announced recently that its indigenously produced Soberana 2 vaccine **was 91.2% efficacious in phase-3 trials.**
- Another of Cuban vaccines, Abdala, had reported an efficacy of 92.8% in late-stage trials.

About Conjugate Vaccines

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Subunit vaccines of Cuba

- In Abdala, the spike protein of the coronavirus is combined with a chemically manufactured adjuvant
- In Soberana 2, the spike protein is chemically linked to the tetanus toxoid, making it a conjugate vaccine

• In a subunit vaccine, a part of the virus forms the antigen, and it is hitched on to another construct



SOBERANA02

- It is a substance that is composed of a polysaccharide antigen fused (conjugated) to a carrier molecule.
- This enhances the stability and effectiveness of the vaccine.
- It combines a weak antigen with a strong antigen as a carrier so that the immune system has a stronger response to the weak antigen.

Working of the Conjugate Vaccines

- The antigen of some pathogenic bacteria does not elicit a strong response from the immune system, so vaccination against this weak antigen would not protect the person later in life.
- In this case, a conjugate vaccine is used in order to invoke an immune system response against the weak antigen.
- The weak antigen is covalently attached to a strong antigen, thereby eliciting a stronger immunological response to the weak antigen.
- Most commonly, the weak antigen is a polysaccharide that is attached to a strong protein antigen.
- This is usually accomplished with an attenuated or dead version of a pathogenic bacterium or virus in the vaccine so that the immune system can recognize the antigen later in life.