

INTERNATIONAL RELATIONS

In Context- India's G20 presidency has committed to depoliticising the "global supply of food, fertilisers and medical products so that geopolitical tensions do not lead to humanitarian crises".

The challenge of hunger & food insecurity

- For the first time in decades, there are a rising number of hungry people, even though we produce enough food to feed 10 billion people.
- Today, more than 800 million people go to bed hungry. Many of them, paradoxically, are small-scale farmers who produce one-third of the world's food.
- **Issue of under investment:** Three-fourths of the world's poorest and food insecure live in rural areas. Rural economies, specifically agriculture, have suffered from chronic under-investment.
- Today, low- and middle-income countries are increasingly indebted, and global inflation and local currency depreciation are making it challenging for them to finance their development and climate action.
- Additionally, donor support for agriculture has stagnated at 4-6 percent of total official development assistance (ODA) for at least two decades.

What is needed?

- Estimates suggest that we need US\$300-400 billion annually until 2030 to transform food systems. So investment needs to grow at least 30 times!

Significance of investing in rural agriculture

- **Benefits for governments**
 - ✚ Boosting local production, local food chains and local markets means global food security, jobs and less conflict.
 - ✚ It will also mean lower GHG emissions (agriculture is responsible for up to 21 per cent of total emissions).
- **Benefits for the private sector,**
 - ✚ Investing in small-scale farmers should be a win-win: Production costs are low, returns on capital are high, farmer organisations and cooperatives have shown they can achieve economies of scale, and crop diversification can defray risk for farms and markets.
- **Aid for the future:**
 - ✚ These investments can build long-term resilience and reduce the impact of climate change and other shocks. Every US\$1 spent on resilience saves up to US\$10 in emergency aid in the future.
 - ✚ Investing in agriculture is at least 2-3 times more effective in reducing poverty than investment in other sectors.
- **Investments by multilateral development banks & financial institutions:**
 - ✚ Small-scale agricultural producers still lack access to credit, markets, technology, infrastructure, information and land.
 - ✚ This is where multilateral development banks and international financial institutions like the International Fund for Agricultural Development (IFAD) can make a big difference.
 - ✚ If we de-risk investments through innovative financial instruments and mechanisms, we can help agriculture become the centre of growth it has the potential to be.

About G20

- **Origin:** The G20 was formed in 1999 in the backdrop of the Asian financial crisis of the 1990s to secure global financial stability by involving middle-income countries.
- **Objectives:** To promote financial regulations that prevent future financial crises; and to create a new international financial architecture to achieve global economic stability and sustainable growth.



- **Members:** Argentina, Australia, Brazil, Canada, China, France, Germany, Japan, India, Indonesia, Italy, Mexico, Russia, South Africa, Saudi Arabia, South Korea, Turkey, the United Kingdom, the United States, and the European Union.

India's Presidency: Roles and responsibilities

- The presidency of the G20 rotates every year among members. India is holding the G20 Presidency from 1 December 2022 to 30 November 2023.
- India aims to strengthen international support for priorities of vital importance to developing countries in diverse social and economic sectors, ranging from Energy, agriculture, trade, digital economy, health and environment to Employment, tourism, anti-corruption and women empowerment.
- **Mobilising resources:** India's G-20 presidency assumes critical importance in mobilising resources that will allow us to deliver on the international community's resolve to ensure that every person has access to affordable, safe, sufficient and nutritious food. This can be done through
 - ✓ Increasing digitisation,
 - ✓ Making insurance attractive for farmers and insurers,
 - ✓ Providing access to easy and discounted loans,
 - ✓ Securing land rights and
 - ✓ Strengthening farmers' organisations.

India's experiences & leadership:

- ✓ India is a crucial partner in the mission to end rural poverty and hunger.
- ✓ Leveraging the panchayat system, India has successfully built robust community institutions that have strengthened people's ability to manage their own development.
- ✓ These experiences are an inspiration for countries attempting to become food secure.
- ✓ India has shown thoughtful leadership in advancing South-South and triangular cooperation. This has only deepened with its increasing economic weight.

20's path:

- The G-20 can set us on the course to much-needed structural change, mobilising commitments from governments, global financial institutions, investors and companies to invest in medium-term sustainable rural development and agriculture.

Way ahead

- The Indian presidency can deliver an operationally feasible roadmap for inclusive, resilient and sustainable food systems.
- This will end hunger for 800 million people, create over 120 million decent rural jobs, boost incomes for the bottom 20 per cent and combat climate change, while also protecting biodiversity.

PRELIM FACTS

1. Fish Kill

In Context: Tens of thousands of dead fish have washed up on the Gulf Coast of Texas due to low oxygen levels in the water.

- **What is fish kill?** It is the sudden and unexpected death of many fish or other aquatic animals over a short period and mostly within a particular area.
- It occurs mainly due to low levels of dissolved oxygen in the water that causes suffocation of the fish.
- A combination of factors led to the occurrence of the Texas fish kill.

Warm water:

- When sea surface temperatures rise, it becomes difficult for the fish to breathe as oxygen dissolves easily in colder water in comparison to warmer water.
- Things take a turn for the worse when a school of fish gets trapped in shallow water, which gets warmer more quickly.
- This causes fish to act more erratically, which in turn, further depletes the oxygen from the water.
- Low oxygen levels could ultimately lead to the death of the fish.

Calm seas:

- One of the ways for oxygen to enter the water is by mixing with wind and waves.
- The waves along the Texas Gulf Coast have been very calm, causing the depletion of dissolved oxygen.

Overcast weather:

- Due to cloudy skies, phytoplankton was unable to carry out the process of photosynthesis, which is another way of producing oxygen in the water.
- Photosynthesis is driven by sunlight and it slows down on cloudy days, resulting in decreased dissolved oxygen concentration.

What is the impact of climate change on fish kill?

- With rising temperatures of oceans, such incidents will become more prevalent.
- Warmer oceans will lead to less dissolved oxygen levels, causing more death of fish.
- Fish like sardines, pilchards and herring will become smaller in size and not be able to move to better environments.
- Some fish species have started to leave their natural habitat in search of cooler waters, which has disrupted the fish industry.

2. Kutumbari temple

Context: The Archaeological Survey of India (ASI) has not yet lost hope of finding out the location of the Kutumbari temple, which was built in the 8th century and was under its protection since 1915 but "disappeared" after 1964.

Key details:

- The Kutumbari Temple is an ancient Hindu temple located in Dwarahat, Almora in Uttarakhand.
- According to ASI, eight temples were under their protection.
- The temple was originally situated on the higher slope of a hill at Dwarahat.
- It is believed that local people took away parts of the temple to use in construction of their houses.
- ASI announced the temple's disappearance and included it in the list of 50 lost monuments across India.
- The temple was last mentioned in the records compiled in 1957.

History of the temple:

- The temple was built by the Katyuri rulers in the 8th century.
- Three deities used to be worshipped there -- Kutumbari, Baladev and Gurjardev.

How can a monument go missing or lost?

- Many monuments and sites were lost to activities like urbanisation, construction of dams and reservoirs, and even encroachments.
 - ✓ 14 monuments have been lost to rapid urbanisation,
 - ✓ 12 are submerged by reservoirs/dams,
 - ✓ While 24 are untraceable, which brings the number of missing monuments to 50.
- Monuments which could not be traced on ground for a considerable time because of multiple factors, despite the strenuous efforts of ASI through its field offices, were referred as Untraceable monuments.

Some monuments which are missing:

- ✓ The Barakhamba Cemetery in Delhi
- ✓ The Guns of Emperor Sher Shah, Tinsukia (Assam);
- ✓ The Ruins of Copper Temple, Paya, Lohit (Arunachal Pradesh);
- ✓ Kos Minar, Mujesar, Faridabad (Haryana);
- ✓ Kutumbari Temple, Dwarahat, Almora (Uttarakhand);
- ✓ Rock Inscription, Satna (Madhya Pradesh);
- ✓ Old European Tomb, Pune (Maharashtra);
- ✓ 12th Century Temple, Baran (Rajasthan);
- ✓ Telia Nala Buddhist ruins, Varanasi (Uttar Pradesh).

3. Pride flag

Context: The month of June, recognised worldwide as the Pride Month, is marked by many events across India to celebrate the LGBTQIA+ community.

What's Pride flag?

- A Pride flag essentially represents the pride associated with LGTQIA+ social movements.
- The Pride flag was used by activists, members of the community and allies as a symbol of resistance and acceptance.
- It was designed by renowned American artist and activist Gilbert Baker.

Why is it called Intersex-Inclusive Progress Pride Flag?

- The intersex has been largely been underrepresented within broader queer narratives.
- Intersex people are born with sex characteristics (including genitals, gonads and chromosome patterns) that do not fit typical binary notions of male or female bodies.
- In 2021, Intersex Equality Rights (UK) decided to adapt the Pride Progress flag design to incorporate the intersex flag, creating the Intersex-Inclusive Pride flag.

What do the colours of the flag signify?

- ✚ Red= Life
- ✚ Orange= Healing
- ✚ Yellow= New Ideas
- ✚ Green= Prosperity

- ✦ Blue= Serenity
- ✦ Violet= Spirit
- ✦ Chevron = Part
- ✦ Black and brown= people of colour
- ✦ White, blue and pink= trans people
- ✦ Yellow with purple circle= Intersex people



4. What is the concept of Miyawaki forest?

- **In Context** -Prime Minister Narendra Modi during his latest ‘Mann ki baat’ episode spoke about Miyawaki plantation, the Japanese method of creating dense urban forests in a small area and also cited the example of a Kerala-based teacher, Raafi Ramnath, who used the Miyawaki technique to transform a barren land into a mini forest called Vidyavanam by planting 115 varieties of trees.

What is the Miyawaki plantation method?

- Named after Japanese botanist Akira Miyawaki, this method involves planting two to four different types of indigenous trees within every square metre. In this method, the trees become self-sustaining and they grow to their full length within three years.
- The methodology was developed in the 1970s, with the basic objective to densify green cover within a small parcel of land.
- The plants used in the Miyawaki method are mostly self-sustaining and don’t require regular maintenance like manuring and watering.
- Over the years, this cost effective method has become the go-to solution for the civic body to restore the green cover in a space-starved city like Mumbai.

How is Miyawaki useful?

- The dense green cover of indigenous trees plays a key role in absorbing the dust particles of the area where the garden has been set up. The plants also help in regulating surface temperature. Some of the common indigenous plants that are used for these forests include Anjan, Amala, Bel, Arjun and Gunj.
- With several infrastructure projects like real estate metro rail construction in progress in Mumbai over the past few years, it was recorded that the surface temperature in certain pockets of Mumbai has increased. Therefore, to fight this challenge, such forests are being created.
- At the industrial neighbourhood in Marol (Andheri East), the BMC is creating an urban forest with the Miyawaki method. “These green patches play a major role in regulating the carbon levels of a given area, which may in return help in maintaining a clean year.

Which other areas in Mumbai have such forests?

- According to the civic body’s data, 64 Miyawaki forests have been planted in Mumbai so far. The Miyawaki drive was launched under BMC’s urban forest project on January 2, 2020 and the first such forest was created in Bhakti Park at Chembur in the eastern suburbs.
- The largest Miyawaki forest under this project was created at Chandivali’s Nahar Amrut Shakti Udyan, wherein over 41,000 plants were planted over 13 acres.
- Civic officials said that more than 4,00,000 trees have been planted in these 64 forests so far. The BMC’s Garden cell had earmarked 1,100 plots across Mumbai for setting up these forests, back in 2020, out of which more than 60 have been completed.

ANSWER WRITING

Q. True knowledge exists in knowing that you know nothing.” (150 words/10 marks)

Solution:

- This quote is by the Greek philosopher Socrates. According to this quote a person who thinks that he has known enough will never be able to grow further and know beyond his/her restrictive domain of knowledge. While a person who is open to new knowledge and also doesn't have any hesitation to change his/her present knowledge system will grow further and achieve new heights.
- Similar ideas in Indian philosophy have been presented by Jainism in their theory of Anekantavada i.e. theory of manyness of reality. It means reality has many dimensions and it is very dynamic. If one asserts in absolute sense the person ends up committing the fallacy of absolute assertion.

Relevance in present context

1. Conflict in international relations

- The half of the twentieth century was a struggle between two super powers to prove that their respective ideologies of communism and capitalism were better but eventually leading to conflict and crisis.
- The current crisis between Ukraine and Russia is also due to assertion in an absolute sense by the West and Russia.

2. Business

- Nokia Company in the early android boom didn't change its business strategy and failed to adapt to changing times. This adamancy to change which emanates from one's ego can lead to negative effects, this as seen in Nokia company which lost its relevance.

3. Rise of communalism

- Conflict in the name of religion arises due to rigidity in thought process.

4. Social evils like Khap panchayat, dowry, female foeticide etc are mainly practiced by those who believe their knowledge is absolute and not willing to change. Bhagat Singh in his essay 'Why I Am an Atheist' correctly said 'blind faith is dangerous'. Here by blind faith he meant rigidity and a belief that one knows everything.

MCQs

1. Consider the following statements about Miyawaki plantation method?

1. Miyawaki plantation method named after Japanese botanist Akira Miyawaki
2. The methodology was developed in the 1970s, with the basic objective to densify green cover within a small parcel of land.

Which of the statements given above is/are in correct?

- a) 1 only
- b) 2 only
- c) **Both 1 and 2**
- d) Neither 1 nor 2

2. Consider the following statements about Kutumbari Temple.

1. The temple was originally situated on the higher slope of a hill at Dwarahat, Almora in Uttarakhand.
2. The temple was built by the Katyuri rulers in the 8th century.
3. Three deities used to be worshipped there -- Kutumbari, Baladev and Gurjardev.

Which of the statements given above is/are in correct?

- a) 1 and 2 only
- b) 2 only
- c) 1 and 3 only
- d) **1, 2 and 3 only**

3. Consider the following statements about Gandhi Peace Prize:

1. This is an annual award given to individuals and institutions for their contributions towards social, economic and political transformation through non-violence and other Gandhian methods.

2. A jury consisting of the Prime Minister of India, the Leader of the Opposition in the Lok Sabha, the Chief Justice of India, Speaker of the Lok Sabha and one other eminent person decides the awardee each year.

Which of the above statements is/are correct?

- a) Only 1
- b) Only 2
- c) **Both 1 and 2**
- d) Neither 1 nor 2

4. Statement I

Females have two X chromosomes and males have a single X and a puny little chromosome called Y.

Statement II

The X contains about 900 genes that do all sorts of jobs unrelated to sex. But the Y contains few genes (about 55) and a lot of non-coding DNA – simple repetitive DNA that doesn't seem to do anything.

Which one of the following is correct in respect of the above statements?

- a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I

- b) **Both Statement-I and Statement II are correct and Statement II is not the correct explanation for Statement-I**
 c) Statement-I is correct but Statement-II is incorrect.
 d) Statement-I is incorrect but Statement-II is correct.
5. Consider the following statements about National Working Plan code 2023:
1. The ministry of Earth Science has released the "National Working Plan Code-2023".
 2. This working plan code is for Scientific management of forests and evolving new approaches.
 3. For the first time, the National Working Plan Code-2023 has prescribed state forest departments to engage in continuous data collection and its updation in a centralized database.
- Which of the above statements is/are correct?
- a) 1 only
 - b) 2 and 3 only**
 - c) 1 and 2 only
 - d) 1, 2 and 3
6. Consider the following statements about Dugdh Sankalan Sathi:
1. Recently the Ministry of Agriculture and Farmers' welfare has unveiled the ground breaking "Dugdh Sankalan Sathi app" at Mussorie, Uttarakhand.
 2. This is designed and developed by Rajasthan Electronics & Instruments Limited (REIL) a Mini Ratna CPSE.
 3. This will inform all services to milk producers in English, Hindi, Punjabi, Telugu and Other languages.
- Which of the above statements is/are correct?
- a) 1 only
 - b) 2 and 3 only**
 - c) 1 and 2 only
 - d) 1, 2 and 3
7. Recently Shakti scheme is in news. Which of the following is related with the Shakti scheme?
- a) It offers free bus rides within the state to women and trans people in Karnataka.**
 - b) It is a maternity program of Government of India.
 - c) it is a free meal scheme in Assam
 - d) This scheme is to enable the girl child and her education.
8. She was an Indian biochemist who in 1939 became the first Indian woman to receive a PhD

in a scientific discipline. Her acceptance into and work at the Indian Institute of Science, Bengaluru, paved the way for women to be accepted into the institution for the first time in its history. Her research delved into the effects of vitamins and into the nutritive values of pulses, paddy, and groups of food items consumed by some of the poorest sections of the Indian population. Her work on the nutritional benefits of the palm extract called 'Neera' was inspired by the then-president Rajendra Prasad's suggestion. She received the Rashtrapati Award for this work.

Which of the following Indian Women scientist is related with the above passage?

- a) Bibha Chowdhary
- b) Anna Mani
- c) Kamala Sohanie**
- d) Mary Poonen Lukose

9. Consider the following cyclones and answer the following question:

1. Tauktae
2. Fani
3. Mandous

What is the correct chronological order?

- (a) 1, 2, 3
- (b) 3, 1, 2
- (c) 2, 1, 3**
- (d) 1, 3, 2

10. Considered the following statement regarding Solar Ultraviolet Imaging Telescope (SUIT).

1. It is developed by Pune's Inter-University Center for Astronomy and Astrophysics (IUCAA).

2. The telescope is set to be integrated with the ADITYA-L1 mission.

Which of the above statement is /are correct?

- a) Only 1
- b) Only 2
- c) Both 1 and 2**
- d) none