

INTERNATIONAL GROUPINGS**3rd Summit of the SCO**

In context: Prime Minister Narendra Modi addressed the **23rd Summit of the SCO** Council of Heads of State .

About Shanghai Cooperation Organisation(SCO)

- It is a permanent intergovernmental international organisation.
- Founded in June 2001.
- It was built on the ‘**Shanghai Five**’, the grouping which consisted of Russia, China, Kazakhstan, Kyrgyzstan and Tajikistan. They came together in the post-Soviet era in 1996, in order to work on regional security, reduction of border troops and terrorism.
- **Members** : The SCO grouping now comprises China, India, Iran, Kazakhstan, Kyrgyzstan, Pakistan, Russia, Tajikistan and Uzbekistan. India acquired the observer status in the grouping in 2005 and was admitted as a full member in 2017.
- The **main goals of the SCO** are : Strengthening mutual confidence and good-neighbourly relations among the member countries.
 - Promoting effective cooperation in politics, trade and economy, science and technology, culture as well as education, energy, transportation, tourism, environmental protection and other fields
 - Making joint efforts to maintain and ensure peace, security and stability in the region, moving towards the establishment of a new, democratic, just and rational political and economic international order.

Major Highlights of recent summit

- **Membership** : The grouping’s decision to induct **Iran** as its ninth and latest member was one of a number of agreements signed at the summit.
- **Other agreements include** : the **New Delhi Declaration**, outlining areas of cooperation between SCO countries; a joint statement on **countering radicalisation**; and one on **digital transformation**, where India offered to share expertise on digital payment interfaces such as UPI.
- SCO members also agreed to explore the use of “**national currencies**” for **payments within the grouping**, which would circumvent international dollar-based payments.
- **Stand on sanctions** : In a reference to sanctions on Russia and Iran by the U.S. and European countries, **SCO members jointly criticised non-UN sanctions** as “incompatible with the principles of international law”, which have a “negative impact” on other countries.
- **Defence** The Member States reiterated that unilateral and unlimited expansion of global missile defence systems by certain countries has a negative impact on international security and stability.
- **Space** :They advocated keeping **outer space free of weapons**.
 - ✓ They called for compliance with the Convention on the Prohibition of the Development, Production, Stockpiling, and Use of Chemical Weapons and on Their Destruction as an effective instrument in disarmament and non-proliferation.
- **Cooperation in other areas** : The Member States expressed their intentions to strengthen cooperation in education, science and technology, culture, health, disaster management, tourism, sports, and people-to-people contacts.
 - ✓ They reaffirmed their commitment to the peaceful settlement of disagreements and disputes between countries through dialogue and consultations.
 - ✓ member states agreed to declare 2024 as the SCO Year of Environment.

India’s Remarks at the Summit

- India refused to join other members on paragraphs relating to **China’s Belt and Road Initiative (BRI)** in the joint statement, and stayed out of a joint statement on **SCO Economic Development Strategy 2030**, indicating a lack of consensus in the grouping.
 - India opposes the BRI over its inclusion of projects in Pakistan-occupied Kashmir.
- India also took sharp aim at Pakistan for cross-border terrorism, and at China for connectivity projects that do not respect sovereign boundaries.

Emerging Challenges

- The Delhi Declaration listed a number of global challenges, including new and emerging conflicts, turbulence in the markets, supply chain instability, climate change and the COVID-19 pandemic are adding to the volatility and uncertainty in the global economy and creating additional challenges for economic growth, maintaining social well-being, ensuring food and energy security, as well as the implementation of the 2030 Agenda for Sustainable Development.
- The Member States have expressed their concern about the growing threats posed by increased production, trafficking and abuse of narcotic drugs and using the proceeds of illicit drug-trafficking as a source of funding for terrorism.

Conclusion and Way Forward

- Some countries use cross-border terrorism as an instrument of their policies, provide shelter to terrorists.

- ✓ SCO should not hesitate to criticise such nations. There should be no place for double standards on such serious matters
- Better connectivity not only enhances mutual trade but also fosters mutual trust.
- However, in these efforts, it is essential to uphold the basic principles of the SCO charter, particularly respecting the sovereignty and regional integrity of the Member States.
- There is the need for a joint and balanced approach to countering trafficking of illicit drugs and their precursors.
- The formation of a “more representative” and multipolar world order is in the global interest
 - ✓ Therefore ,New approaches are required to promote a more equitable and effective international cooperation.

SCHEMES

1. Mo Jungle Jami Yojana

In context: The Odisha government announced the **launch of state forest rights scheme** to strengthen forest rights among tribals and forest dwellers across the state’s districts.

About the Scheme

- ✓ **To function Parallel to FRA:** The Mo Jungle Jami Yojana is aimed to function parallelly with **The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 or FRA**. It is entirely funded by the state government.
- ✓ **To bridge gaps in FRA:** The scheme is conceived to bridge the gaps and address critical issues not targeted in the central scheme (FRA) for the past 15 years since its implementation.
- ✓ **Revenue Villages:** Under the scheme, all unsurveyed, forest and zero area villages will be converted into revenue villages thus enabling all households access to water supplies, road connectivity, schools and healthcare.
- ✓ **Digitising records:** The scheme would also include digitising records of title holders who can then access them online. The state will thereby have data of all the claimants and the number of benefits received by the title holders under the different programmes of the scheme
- ✓ **Providing land titles:** The implementation of the scheme will provide ownership of land and access to forest resources to the beneficiaries according to their entitlement and join them with mainstream development programmes of the government.
 - According to the notification, all eligible claimants — mainly single women and PVTGs — will receive land titles and record corrections will be made for all title holders.
 - If implemented, Odisha would become the **first in India to recognise community forest rights along with individual rights** offered by the Centre.

State Data on Tribes

- ✓ Odisha has **32,562 FRA potential villages and 7.35 potential Scheduled Tribe families** which are targeted to be benefitted.
- ✓ The state is home to **62 different tribes** of which **13 are recognised as Particularly Vulnerable Tribal Groups (PVTG)**.
- ✓ The tribal population is estimated at 9,590,756 which amounts to **22.85 percent of the overall population**.

Forest Rights Act, 2006

About:

- The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006- popularly known as Forest Rights Act (FRA) **recognises the rights of forest dwellers** and the importance of their participation in the forest management processes.
- It also marks a shift from the colonial era view of forest dwelling communities being isolated entities which prey on forests.
- The act is based more on the principle that the **communities are a part of forest ecosystems**.
- ‘Gram Sabha’ is an important entity within the act’s tools to achieve its objective.

Objectives:

- To **undo the historical injustice** occurred to the forest dwelling communities
- To ensure land tenure, livelihood and food security of the forest dwelling Scheduled Tribes and other traditional forest dwellers
- To strengthen the conservation regime of the forests by including the responsibilities and authority of Forest Rights holders for sustainable use, conservation of biodiversity and maintenance of ecological balance.

2. Central Water Commission (CWC)

In Context: India is facing a serious water crisis as most of its reservoirs are running low on water due to deficient rainfall in June, the first month of the monsoon season. This has affected the sowing of kharif crops and raised concerns about the availability of water for irrigation and drinking purposes till May 2024.

About:

- ✓ According to the latest data from the Central Water Commission (CWC), which monitors 146 reservoirs across the country, water levels in 110 of them are 40% or below their capacities as on June 30.

- ✓ The CWC data also shows that water levels in the reservoirs of 10 states are lower than the normal levels based on their 30-year average. These states are Bihar, West Bengal, Odisha, Jharkhand, Uttar Pradesh, Uttarakhand, Kerala, Karnataka, Tripura and Nagaland. The deficiency ranges from 11% to 80% in these states.
- ✓ The situation is alarming as India's hydrological year starts in June and continues till May of next year. The reservoirs depend on the monsoon rains for filling up during the June-September period. However, this year, several parts of India received deficient rainfall in June, despite the monsoon covering the entire country six days earlier than normal, said experts.
- ✓ The India Meteorological Department (IMD) data reveals that till July 4, around 33% of 717 districts for which data are available received deficient rains, while for another 10%, it was even worse. Insufficient rainfall has also affected the sowing of main kharif crops such as paddy, which requires adequate water for germination and growth.
- ✓ The CWC, however, said that the water level was better than the last 10-year average and that it reviews the situation on a weekly basis along with other departments under the Ministry of Agriculture & Farmers' Welfare to take further actions.

Central water commission:

- ✓ The Central Water Commission (CWC) is a premier technical organization in India in the field of water resources. It was established in 1945 as an advisory body to the Government of India on matters relating to water resources development and management.
- ✓ It operates as an attached office of the Ministry of Jal Shakti, Department of Water Resources, River Development and Ganga Rejuvenation, Government of India.
- ✓ Its main role is to plan, design and implement schemes for the management, conservation and use of water resources across the country, for purposes such as flood control, irrigation, navigation, drinking water supply and hydropower generation.

Working structure:

- ✓ CWC is headed by a Chairman, who has the rank of Ex-Officio Secretary to the Government of India. The work of CWC is divided into three wings:
 - Designs and Research (D&R) Wing
 - River Management (RM) Wing
 - Water Planning and Projects (WP&P) Wing.
- ✓ Each wing is led by a Member, who has the rank of Ex-Officio Additional Secretary to the Government of India and oversees several organizations that perform specific tasks and duties within their scope of functions.
- ✓ A separate Human Resources Management Unit (HRMU) headed by a Chief Engineer, handles the human resources development, financial management, training and administrative matters of CWC.
- ✓ National Water Academy (NWA) located in Pune is responsible for training central and state in-service engineers and it functions directly under the guidance of the Chairman.
- ✓ CWC has nineteen organizations located at its headquarters in New Delhi and thirteen organizations spread over various locations in India.

The main functions of CWC:

- ✓ To provide technical assistance and guidance to the state governments and central ministries on planning, design, construction, operation and maintenance of water resources projects.
- ✓ To undertake a techno-economic appraisal of major and medium irrigation, flood control and multipurpose projects and to accord investment clearance.
- ✓ To monitor the implementation of major and medium irrigation, flood control and multipurpose projects and to evaluate their performance.
- ✓ To collect, compile and publish hydrological and hydro-meteorological data and to maintain a national network of observation stations.
- ✓ To carry out surveys and investigations for basin planning, inter-state water disputes, flood forecasting and reservoir regulation.
- ✓ To conduct research and studies on various aspects of water resources engineering, hydrology, sedimentation, soil conservation, groundwater, etc.
- ✓ To promote international cooperation in water resources development and management.

The CWC plays a vital role in the optimal utilization and management of the country's water resources. It contributes to the national objectives of enhancing food security, ensuring water security, mitigating floods and droughts, promoting regional equity, fostering interstate harmony and safeguarding environmental sustainability.

Conclusion: The Central Water Commission is a key institution in the field of water resources development and management in India. It has a rich legacy of achievements as well as a huge responsibility for the future. It needs to constantly innovate, adapt and evolve to meet the emerging challenges and opportunities in the sector. By doing so, it can play a pivotal role in ensuring water security for the nation.

PRELIM FACTS**1. GIFT NIFTY**

In context: The popular Singapore Exchange (SGX) NIFTY started trading from GIFT City in Gujarat as Gift Nifty, executing over 30,000 trades in a single session. This is the first cross-border initiative in connecting India and Singapore's capital markets.

What is GIFT NIFTY?

- ✓ Trading on SGX NIFTY ceased in Singapore and the entire trading volume and liquidity fully switched to GIFT IFSC.
 - Therefore, it was rechristened **GIFT NIFTY**.
 - This migration was first initiated by Prime Minister Narendra Modi in July 2022.
- ✓ Currently, four products are being offered under the umbrella brand of GIFT Nifty — GIFT Nifty 50, GIFT Nifty Bank, GIFT Nifty Financial Services and GIFT Nifty IT derivatives contract.
- ✓ According to a five-year contract between the two, business will largely be shared on a 50:50 basis.

Importance for India

- ✓ GIFT Nifty is an important milestone for GIFT IFSC and its outreach towards foreign investors and enhancing the capital market ecosystem in GIFT City
- ✓ Over the past two decades, SGX has been our bridge to the world. It has linked two of the fastest growing economies of the world

2. Mosaic Viruses

In context: Tomato crop in Maharashtra was impacted by attacks of the cucumber mosaic virus (CMV), while in Karnataka and other South Indian states the farmers blaming tomato mosaic virus (ToMV) for crop losses.

What is Mosaic virus?

- ✓ It is a parasite that destroys plants, gardens, and crops down to their molecular level.
- ✓ Once a plant contracts the mosaic virus, the infected plant can then spread the virus to other plants and even affect an entire harvest if left untreated.
- ✓ It affects a wide variety of horticultural and vegetable crops — roses, beans, tobacco, tomatoes, potatoes, cucumbers, pumpkins, squash, melons, and peppers.

What is ToMV?

- ✓ It belongs to the Virgaviridae family and is closely related to the tobacco mosaic virus (TMV).
- ✓ It hosts include tomato, tobacco, peppers, and certain ornamental plants.
- ✓ It spreads mainly through infected seeds, saplings, agricultural tools.
- ✓ It would require only a few infected saplings for the virus to take over an entire field in a matter of days.
- ✓ It can remain dormant in weeds and plant remains around the field, and come back later.

What is CMV?

- ✓ It has a much larger host pool that includes cucumber, melon, eggplant, tomato, carrot, lettuce etc.
- ✓ It was identified in cucumber in 1934, which gave the virus its name.
- ✓ It is spread by aphids which are sap-sucking insects.
- ✓ It can also spread through human touch, but the chances of that are extremely low.
- ✓ Conditions of high temperature followed by intermittent rain, which allow aphids to multiply, are conducive to the spread of CMV.

3. JIMEX 2023

In context: The Indian Navy is hosting the bilateral Japan-India Maritime Exercise 2023 (JIMEX 23), which takes place at/off Visakhapatnam.

About JIMEX 2023:

- ✓ This edition marks the 11th anniversary of JIMEX, since its inception in 2012.
- ✓ This exercise will witness the participation of INS Delhi, INS Kamorta, fleet tanker INS Shakti, a submarine, maritime patrol aircraft P8I and Dornier, ship-borne helicopters and fighter aircraft.
- ✓ The exercise will be conducted over six days in two phases.
- ✓ A harbour Phase at Visakhapatnam comprising professional, sports and social interactions.
- ✓ The two navies will jointly hone their war fighting skills at sea and enhance their interoperability through complex multi-discipline operations in the surface, sub-surface and air domains.
- ✓ JIMEX 23 provides an opportunity to learn from each other's best practices and facilitates operational interactions between IN and JMSDF to foster mutual cooperation and reaffirm their shared commitment towards maritime security in the region.

4. Annapurti:

In context: A demonstration of the Automated Multi-Commodity Grain Dispensing Machine – 'Annapurti' was recently conducted during the 'National Conference of Food Ministers of States/UTs' organized by the Department of Food and Public Distribution (DFPD).

About Annapurti:

- ✓ GrainATM, Annapurti, is an automated multi-commodity dispensing solution that provides fast, clean, and precise access to commodities (rice, wheat, grains) to beneficiaries, post biometric authentication.
- ✓ It is developed by World Food Programme (WFP) India.

- ✓ GrainATM ensures 24x7 access to full entitlements for people entitled to monthly subsidized grains through India's Public Distribution System.
- ✓ Annapurta has potential use for food-based safety nets, food grain distribution during emergencies, and increasing market access for smallholder farmers.
- ✓ Annapurta, which dispenses the type and quantity of the selected grain (wheat, rice or millet) commodity to each beneficiary after biometric authentication, does away with the possibility of spillage, waste and short-weighting.

Features:

- ✓ Annapurta dispenses one or two grain commodities, up to 50 kilograms, in five minutes, with an error rate of 0.01 percent.
- ✓ The entire solution, including the volume of the storage unit, is modular or easily assembled and can be put together depending on the amount of space available.
- ✓ To ensure food security with efficient energy access, the machine has been designed to consume only 0.6 Watt per hour.
- ✓ It can also be attached to solar panels, inverter batteries and elevators for automatic refilling.

5. **World Zoonosis Day**

In Context: The first immunization against a zoonotic illness is commemorated annually on July 6 as World Zoonosis Day. Indian Immunologicals Limited (IIL) organised a nationwide free vaccination camp against zoonotic diseases on account of World Zoonosis Day 2023.

About:

- ✓ Zoonotic diseases originate in animals and can spread to humans.
- ✓ Infections occur through bites or contact with the infected animal's bodily fluids.
- ✓ Virus, bacteria, fungi, prions or parasites cause zoonosis.
- ✓ Rabies, Ebola, certain strains of Swine flu, leptospirosis, brucellosis, anthrax, Zika and Ebola viruses, rickettsioses, plague, chikungunya, dengue and Japanese encephalitis, are the most notorious zoonotic diseases.

Origin of World Zoonosis Day

- ✓ World Zoonosis Day was instituted on 6 July 1885 to educate and raise awareness about zoonotic diseases that can transmit from animals to humans.
- ✓ It commemorates French biologist Louis Pasteur, who administered the first dose of the first vaccine against rabies.

ANSWER WRITTING

Q. Examine the role played by science and technology in the post-Independence period in order to put India on the path of modernity.

Introduction: Nehru believed that science and technology were crucial to the solution of India's problems. The Scientific Policy Resolution, acknowledging the role of science and technology in the economic, social and cultural advancement of the country, was passed by the Lok Sabha in March 1958.

Role played by science and technology in the post-Independence

- **Industrialization:** Rapid industrialisation based on foundations of modern science and technology helped in the planned socialist model of development of the country. Pandit Nehru initiated a strong and diversified industrial base. This led to the passage of the Industrial Policy Resolution of 1948 followed by the Industrial Policy Resolutions / Statements of 1956, 1973, 1977, 1980 and 1991.
- **Rapid agriculture development:** The first five-year plan of 1951 addressed the issues of the agrarian sector, including investments in dams and irrigation. The total planned budget was allocated to irrigation and energy, agriculture and community development, transport and communications, industry social services, land rehabilitation, and other sectors and services.
- **The ICAR has played a pioneering role in ushering Green Revolution in 1970s and subsequent developments in agriculture in India through its research and technology development that has enabled the country to increase the production of food grains by 4 times, horticultural crops by 6 times, fish by 9 times (marine 5 times and inland 17 times), milk 6 times and eggs 27 times since 1950-51, thus making a visible impact on the national food and nutritional security. It has played a major role in promoting excellence in higher education in agriculture.**
- **Space technology:** In 1962, the Indian National Committee for Space Research (INCOSPAR), together with a Rocket Launching Facility at Thumba (TERLS), was established. It laid the foundation of future space technology development of the country.
- **Technical Education:** In 1952, the first of the five institutes of technology, patterned after the Massachusetts Institute of Technology, was set up at Kharagpur.
- **Atomic Energy:** The Atomic Energy Commission, headed by Homi J. Bhabha, was set up in August 1948. In 1954, the government created a separate Department of Atomic Energy with Homi Bhabha as secretary. In August 1956, India's first nuclear reactor in Trombay (Asia's first also), became critical. These institutions have helped the country to become a nuclear state.
- **India adopted scientific temper and secularism as a foundation of new India, and of dams as the temples of modern India. Tolerance and spirituality characterize the country's rich culture.**
- **A change over to decimal coinage and a metric system of weights and measures, in line with international standards, was made in phases between 1955 and 1962.**

However, the continuing instances of communalism, regionalism, untouchability, gender based discrimination etc. show that India is yet to be a modern state. The lack of scientific temperament still witnesses issues of blind faith, witch hunting etc. The Indian education system still witnesses rote learning.

Conclusion: The Government of India, through the Science, Technology and Innovation (STI) Policy-2013, New Education Policy, 2020 among other things, aspires to position India among the world's top five scientific powers and to inculcate scientific temperament among the people of the country.

MCQ

1. A leopard was recently found dead in the Sohagi Barwa Wildlife Sanctuary, considered the following statement:
 1. the Sanctuary shares the international boundary with Nepal,
 2. It is drained by the great Gandak, the little Gandak, Pyas and Rohin rivers.
 3. It is situated in the Maharajganj district of Uttar Pradesh.
 How many of the above statements is/are correct?
 - a) Only 1
 - b) Only 2
 - c) **All of the Above**
 - d) None of the Above
2. Considered the following statement regarding Mosaic virus
 1. It is a parasite that destroys plants, gardens, and crops down to their molecular level.
 2. It affects a wide variety of horticultural and vegetable crops.
 3. This virus cause for tomato price rise.
 How many of the above statements is/are correct?
 - a) Only 1
 - b) Only 2
 - c) **All of the Above**
 - d) None of the Above
3. Considered the following statement:
 1. GrainATM, Annapurti, is an automated multi-commodity dispensing solution that provides fast, clean, and precise access to commodities (rice, wheat, grains)
 2. It need not biometric authentication.
 3. It is developed by World Food Programme (WFP) India.
 How many of the above statements is/are correct?
 - a) Only 1
 - b) **Only 2**
 - c) All of the Above
 - d) None of the Above
4. Which of the following exercise are the between India and Japan?
 1. Malabar
 2. SHINYUU Maitri
 3. Dharma Guardian
 4. JIMEX,
 Code:
 - a) 1 and 3
 - b) 2 and 3
 - c) Only 4
 - d) **1,2,3 and 4**
5. **World Zoonosis Day is celebrated on which date?**
 - a) July 5
 - b) **July 6**
 - c) June 5
 - d) June 6
6. Considered the following statement regarding The Mo Jungle Jami Yojana;
 1. The Mo Jungle Jami Yojana is aimed to function parallelly with The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 or FRA.
 2. It is entirely funded by the state government.
 How many of the above statements is/are correct?
 - a) Only 1
 - b) Only 2
 - c) **All of the Above**
 - d) None of the Above
7. Considered the following statement regarding SCO.
 1. It is a permanent intergovernmental international organisation.
 2. Recently Iran joined the SCO as the ninth member at its 23rd leaders' summit.
 How many of the above statements is/are correct?
 - a) Only 1
 - b) Only 2
 - c) **All of the Above**
 - d) None of the Above
8. With reference to the Leptospirosis, consider the following statements:
 1. It is an infectious zoonotic disease caused by a bacterium leptospira.
 2. Extreme cold temperature is one of the causes or facilitator of the disease.
 Which of the statements given above is/are correct?
 - a) **Only 1**
 - b) Only 2
 - c) Both 1 and 2
 - d) None
9. Consider the following statements

Statement-I: James Webb Space Telescope is launched by the European Space Agency.

Statement-II: James Webb Space Telescope was launched in Ariane 5 rocket.

 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.
10. What is the main function of the Central Water Commission?
 1. To regulate and develop inter-state rivers and river valleys.
 2. To monitor and forecast floods and droughts.
 3. To advise the government on water resources planning and management.
 How many of the above statements is/are correct?
 - a) Only 1
 - b) Only 2
 - c) **All of the Above**
 - d) None of the Above