

Iran Nuclear talk to begin

- Stalled negotiations over Iran's nuclear programme have been unblocked after fresh talks in Tehran,

About JCPOA

- The Joint Comprehensive Plan of Action known commonly as the Iran nuclear deal or Iran deal, is an agreement on the Iranian nuclear program reached in Vienna on 14 July 2015, between Iran and the P5+1 (the five permanent members of the United Nations Security Council China, France, Russia, United Kingdom, United States plus Germany) together with the European Union.

Iran Perspective

- Iran's problems with the U.S. are not based on technical issues pertaining to uranium enrichment; they were political and relate to its domestic order and regional role.
- Iran has now moved on, with deepening ties with Russia and China, and robust engagements political, economic, military and logistical with regional partners. Iran is rebuilding relations with Azerbaijan, is a partner with Turkey in Syria, and has had four rounds of dialogue with Saudi Arabia.

- Meanwhile, the U.S. itself has lost much of its credibility as a security provider in the region, aggravated by signals of disengagement from West Asian affairs from the Biden administration.
- This has encouraged regional players to pursue multiple diplomatic engagements amongst themselves the UAE, for instance, is in dialogue with Iran, while building close ties with Israel and Egypt, and economic cooperation with Turkey.
- Iraq is pursuing a cooperation network with Egypt and Jordan, while Turkey has reached out to the UAE, Saudi Arabia and Egypt, while retaining close ties with Qatar and Iran.

THE HINDU

mRNA Vaccine

- The Centre for Cellular and Molecular Biology (CCMB) here has established the "proof of principle" of the first indigenous mRNA vaccine technology coming from a scientific institution in India.
- While vaccines work by training the immune system to identify disease-causing micro-organisms and eliminate them quickly when they encounter them, in the mRNA technology, the host cell's immune system is trained to evade the real infection.

- This is done by introducing mRNA of the micro-organism of concern into the host.
- The home-grown mRNA vaccine platform holds promise to deal with other infectious diseases such as TB, dengue, malaria, chikungunya, rare genetic diseases and others.

mRNA Vaccine working

- The mRNA will enter the muscle cells and instruct the cells' machinery to produce a harmless piece of what is called the spike protein. The spike protein is found on the surface of the virus that causes COVID-19. After the protein piece is made, our cells break down the mRNA and remove it.
- Next, our cells display the spike protein piece on their surface. Our immune system recognizes that the protein doesn't belong there. This triggers our immune system to produce antibodies and activate other immune cells to fight off what it thinks is an infection. This is what your body might do to fight off the infection if you got sick with COVID-19.
- At the end of the process, our bodies have learned how to protect against future infection from the virus that causes COVID-19. The benefit of COVID-19 mRNA vaccines, like all vaccines, is that those vaccinated gain this protection without ever

having to risk the potentially serious consequences of getting sick with COVID-19.

THE HINDU

SCO RATS

- Counterterrorism teams from Russia, China, Pakistan and Central Asian countries will gather in Delhi on the weekend ahead of the Shanghai Cooperation Organisation's Regional Anti-Terror Structure (SCO-RATS)

About SCO-RAT

- SCO-RATS is a permanent body of the SCO and is intended to facilitate coordination and interaction between the SCO member states in the fight against terrorism, extremism and separatism.
- The main functions of SCO-RATS are coordination and information sharing.
- As a member, India has actively participated in the activities of SCO-RATS.
- India's permanent membership would enable it to generate greater understanding among members for its perspective.

THE HINDU

Shanghai Cooperation Organisation (SCO)

- The Shanghai Cooperation Organisation (SCO), also known as the Shanghai Pact, is a transcontinental political, economic, security, and military alliance.
- In terms of geographic scope and population, it is the world's largest regional organization, covering approximately 60% of the area of Eurasia, 40% of the world population, and more than 30% of global GDP.
- The SCO is the successor to the Shanghai Five, a mutual security agreement formed in 1996 between China, Kazakhstan, Kyrgyzstan, Russia, and Tajikistan.
- On 15 June 2001, the leaders of these nations and Uzbekistan met in Shanghai to announce a new organisation with deeper political and economic cooperation; the SCO Charter was signed on 7 July 2002 and entered into force on 19 September 2003. Its membership has since expanded to eight states, with India and Pakistan joining on 9 June 2017.

THE HINDU

Jute industry crisis in west Bengal

- West Bengal is the hub of India's jute industry, valued at around Rs 10,000 crore.
- The issue is the procurement of raw jute at a higher cost but the final output is being sold at higher rates. The government procures raw jute from farmers at a fixed Minimum Support Price (MSP) which is Rs 4,750 per quintal for the financial year 2022-23.
- Reports show that this reaches the mill at Rs. 7,200 per quintal, that is, Rs. 700 more than the Rs. 6,500 per quintal cap for the final product.
- The jute mills do not procure raw material directly from the farmers because the mills are far from farmers and the process of procurement takes time. No single farmer produces enough to meet the entire demand of a mill. Thus, the middlemen or traders procure raw jute from multiple farmers and then trade it to the mills,
- In May 2020, Cyclone Amphan resulted in lower production of Jute. A report by the Commission for Agricultural Costs and Prices (CACP) said that a lower quality of jute fibre was produced in 2020-21 due to the cyclone.

- The problem of waterlogging arose and farmers had to harvest their crops prematurely. Furthermore, lower production was already a problem and hoarding added to it.

Jute production in India

- India is the largest producer of Jute followed by Bangladesh and China. It is also known as the golden fibre and is one of the most significant industries after cotton in India.
- However, Bangladesh tops the list in terms of acreage and trade as it accounts for three-fourths of the global jute exports in comparison to India's 7%.
- The major jute producing states are West Bengal, Bihar, Odisha, Assam, Andhra Pradesh, Meghalaya and Tripura and over 99% of India's total production is held by West Bengal, Bihar and Assam.
- Jute is majorly grown in the delta shared by West Bengal and southwest Bangladesh, and in parts of Assam, Meghalaya and Tripura.
- It grows in a warm and humid climate with temperatures between 24° C to 37° C.
- It is totally biodegradable and recyclable. It not only consumes carbon dioxide and releases oxygen but also increases soil fertility if grown in crop rotations. It does not produce toxic gases while burnt.

THE HINDU