

I2U2

- The U.S. believes that 'I2U2', a group comprising India, Israel, the U.S., and the UAE, can become "a feature" of the West Asian region, just like the Quad is for the Indo-Pacific.
- This idea was articulated by U.S. National Security Adviser Jake Sullivan on board Air Force One, en route to Israel with U.S. President Joe Biden.
- I2U2, which was launched last autumn, has been called the "West Asian Quad"
- India was one of the most "strategically consequential countries" in the Indo-Pacific and therefore "should" play a central role in U.S. strategy. India also had a long-standing relationship with the Gulf countries and Israel.
- India and the West Asian countries in I2U2 could come together and work on agricultural technology.

THE HINDU

India's renewable energy target

- India has achieved clean energy targets nine years ahead of schedule
- India has installed 162 GW (1 GW is 1,000 MW) of renewable energy

capacity, which is 41% of the 402 GW of electricity installed.

- In 2015, India committed to ensuring that 40% of its energy would be from renewable sources by 2030 as part of its Nationally Determined Contributions (NDC).
- Renewable energy promised to break these cartels though it was possible that there would be newer such cartels forming in manufacturing and equipment and the world would have to take steps to ensure that these do not coalesce.

THE HINDU

New Images by JWST

- As light travels with a velocity of about 3,00,000 km per second, light from a distant object will take time to reach us on Earth.
- Hence, when we see a distant stellar object, we see it as if it were far back in time. To collect more light we need giant infrared telescopes. JWST is the biggest infrared telescope ever built.
- The first five images released are the deep field image of the SMACS 0723 cluster of galaxies which date back to times when the first stars were born, the Carina Nebula vividly showing the birth of new stars, the Southern Ring Nebula which details a dying

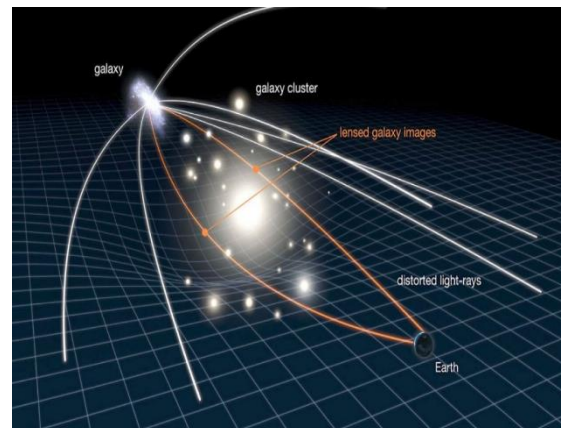
star, the Stephan's quintet where we can see the cataclysmic cosmic collision of galaxies and finally the WASP-96 b, an exoplanet (a planet orbiting a distant star).

- The spectroscopic observation of JWST reveals that there is a considerable amount of water vapour in the WASP-96 b's atmosphere.
- However, due to the blistering heat, WASP-96 is unlikely to host life.
- The Eight-Burst Nebula, also known as the Southern Ring Nebula or NGC 3132, is a well-known planetary nebula in the constellation Vela, located approximately 2,500 light-years from Earth.

What is gravitational lensing?

- When taken to the extreme, gravity can create some intriguing visual effects that Hubble's is well suited to observing. Einstein's general theory of relativity describes how mass concentrations distort the space around them.
- A gravitational lens can occur when a huge amount of matter, like a cluster of galaxies, creates a gravitational field that distorts and magnifies the light from distant galaxies that are behind it but in the same line of sight. The effect is like looking through a giant magnifying glass.

- It allows researchers to study the details of early galaxies too far away to be seen with current technology and telescopes.



- Smaller objects, like individual stars, can also act as gravitational lenses when they pass in front of more distant stars.
- For a few days or weeks, light from the more distant star temporarily appears brighter because it is magnified by the gravity of the closer object. This effect is known as gravitational microlensing.

THE HINDU

President as a rubber stamp

- There was a great deal of debate in the Constituent Assembly on the President.
- The main question debated therein was whether India should have a directly elected President or an indirectly elected one.

- The Assembly opted for an indirectly elected President.
- There were members such as Professor K.T. Shah who strongly argued for a directly elected President.
- He asked a rhetorical question, which was whether the Assembly wanted the president to be a “sort of mere gramophone of the Prime Minister.”
- Dr. B.R. Ambedkar said: “Our President is merely a nominal figurehead. He has no discretion; he has no powers of administration at all.
- Article 53 of the Constitution says that “the executive power of the Union shall be vested in the President and shall be exercised by him either directly or through officers subordinate to him in accordance with this Constitution.”
- Under Article 54, the President is elected by an electoral college consisting of only the elected members of both Houses of Parliament and the elected members of the State and Union Territory Assembly.
- a matter of importance in this context is the vote value of Members of the Legislative Assemblies (MLAs) and the formula for its computation.
- The vote of an MLA, though one, is assigned a certain higher value.
- This value is calculated by first dividing the total population of the State (as per the 1971 Census) by the total strength of the Assembly, and then the quotient is divided by one thousand.
- The population of the country is a crucial factor in the election of the President, which means the people’s presence in the process of electing the President is very much visible.
- President can disagree with the decisions of the Cabinet and ask the Cabinet to reconsider them.
- The Constitution of India wants the President to be vigilant and responsive, and gives the freedom to him or her to take a broader view of things uninfluenced by the narrow political view of the executive.
- The oath the President takes before entering office. The oath contains two solemn promises.
- First, the President shall preserve, protect and defend the Constitution.
- Second, the President shall devote himself or herself to the service and the well-being of the people of India. A President who makes the above promises under oath to the people cannot act, in the words of Professor K.T. Shah, as a gramophone of the Prime Minister.

The shift in South Korean foreign and security policies

- The newly elected Korean President, Yoon Suk Yeol, has brought about a paradigm shift in South Korean foreign and security policies.
- He has proposed that South Korea should step up to become a “global pivotal state, anchored in liberal values and a rules-based order” that “advances freedom, peace, and prosperity through liberal democratic values and substantial cooperation”.
- South Korea’s new willingness to become a global pivotal state and play an active role in regional affairs is bound to create multiple opportunities for a multi-dimensional India- Korea partnership.
- In the last few years, India and South Korea have faced serious blockades to their economic ties.
- Trade between the two countries was sluggish and there was no major inflow of South Korean investment into India.
- South Korea’s strategic policy shift to correct its heavy tilt towards China is bound to bring new economic opportunities for both countries
- The emerging strategic alignment is creating a new convergence of capabilities and closer synergy in new areas of economic cooperation such as public health, green growth, digital connectivity, and trade, among others.
- In 2020, India and South Korea signed a Roadmap for Defence Industries Cooperation between the Republic of India and the Republic of Korea (ROK) deal.

Indo-Pacific outlook

- South Korea’s participation in additional maritime security activities in the Indian Ocean, such as the annual Malabar and other exercises with Quad countries, will further strengthen India’s naval footprint in the Indo-Pacific region
- The shift in South Korean policies will enable a strong India, South Korea and Japan defense policy coordination that could effectively forge new joint regional security policies.
- With South Korea’s emergence as a leader in critical technologies, cybersecurity and cyber-capacity building, and outer space and space situational awareness capabilities, South Korea can contribute

immensely to enhancing India's foundational strengths in the Indo-Pacific.

- India can help South Korea withstand Chinese pressure and North Korean threats.
- An independent, strong, and democratic South Korea can be a long-term partner with India, which will add significant value to India's Indo-Pacific strategy.
- This new partnership can have a long-term positive impact for both countries and the Indo-Pacific region.

THE HINDU

Global gender gap index

- India ranks 135 among a total of 146 countries in the Global Gender Gap Index, 2022, released by the World Economic Forum on Wednesday.
- The country is the worst performer in the world in the "health and survival" sub-index in which it is ranked 146.
- The Global Gender Report, 2022, which includes the index, says it will now take 132 years to reach gender parity, with the gap reducing only by four years since 2021 and the gender gap closed by 68.1%.

- But this does not compensate for the generational loss between 2020 and 2021 as the trends leading up to 2020 showed that the gender gap was set to close within 100 years.
- India ranks poorly among its neighbours and is behind Bangladesh (71), Nepal (96), Sri Lanka (110), Maldives (117) and Bhutan (126).
- Only the performance of Iran (143), Pakistan (145) and Afghanistan (146) was worse than India in South Asia. In 2021, India ranked 140 out of 156 nations.
- The Global Gender Gap Index benchmarks gender parity across four key dimensions or sub-indices economic participation and opportunity, educational attainment, health and survival, and political empowerment.
- It measures scores on a 0-to-100 scale, which can be interpreted as the distance covered towards parity or the percentage of the gender gap that has been closed.
- India ranks 146 in health and survival, 143 in economic participation and opportunity, 107 in educational attainment and 48 in political empowerment.

THE HINDU

