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A. GS 1 Related

Category: SOCIAL ISSUES

1. India ranks 135 out of 146 in Gender Gap Index

Syllabus: Role of women and women's organization and associated issues

Prelims: Gender Gap Index

Mains: India's performance in Global Gender Gap Index 2022

Context

The World Economic Forum released the Global Gender Gap Index, 2022.

Global Gender Gap Index

- The Global Gender Gap Report was published by the World Economic Forum for the first time in 2006.
- This index provides a means to gauge gender equity.
- **Aim:** to measure gender-based gaps in access to resources and opportunities in countries rather than the actual level of the available resources and opportunities in those countries.
- The index benchmarks the state and evolution of gender parity and is measured across four key pillars namely:
 - Economic Participation and Opportunity
 - Educational Attainment
 - Health and Survival
 - Political Empowerment
- The index measures and scores on a scale of 0 to 100 and is interpreted as the efforts undertaken towards parity or percentage of the gender gap that has been closed.

Global Gender Gap Index 2022

- 146 countries were assessed this year.
- The report notes that in 2022, the global gender gap has been closed by 68.1% and it would take about 132 years to reach full parity at the current rate of progress.
- India has been ranked 135th among the 146 countries. (India was ranked 140 out of 156 countries in 2021)

India’s performance in Global Gender Gap Index 2022

INDIA'S REPORT CARD				
Index/sub-index	2022 (146 countries)		2021 (156 countries)	
	Rank	Score	Rank	Score
Global Gender Gap Index	135	0.629	140	0.625
Political empowerment	48	0.267	51	0.276
Economic participation & opportunity	143	0.350	151	0.326
Educational attainment	107	0.961	114	0.962
Health and survival	146	0.937	155	0.937

Source: World Economic Forum

Image Source :

World Economic Forum[/caption]

- India has performed poorly in the index compared to its neighbouring countries such as Bangladesh (ranked 71), Nepal (ranked 96), Sri Lanka (ranked 110), and Bhutan (ranked 126). However, India has performed slightly better than Pakistan and Afghanistan which are ranked 145 and 146 respectively.
- **Economic Participation and Opportunity**
 - This sub-index includes aspects such as percentage of women in the labour force, equality of wages between men and women, income earned by women, etc.
 - India has been ranked 143 out of the 146 countries in this Index
 - India's score saw a slight improvement in this index compared to 2021.
 - India's score is much lower than the global average, and only Iran, Pakistan and Afghanistan are behind India on this metric.
- **Educational Attainment**
 - This sub-index includes dimensions like literacy rate and the enrolment rates in the various levels of the education system.
 - India has been ranked 107th and its score has slightly decreased as compared to 2021.
- **Health and Survival**
 - This includes metrics like sex ratio at birth and healthy life expectancy
 - India is ranked last i.e. 146th among as many countries.
- **Political Empowerment**
 - This sub-index includes aspects such as the percentage of women in Parliament, the percentage of women in ministerial positions etc.
 - India is ranked 48th out of 146.
 - However, India's score has been reduced since 2021.

Nut graf: India has been ranked as one of the least performing countries in the Global Gender Gap Index 2022. India has fairly better in the Political Empowerment aspect but has been ranked poorly in other sub-indices such as Health and Survival, Educational Attainment and Economic Participation and Opportunity.

B. GS 2 Related

Nothing here for today!!!

C. GS 3 Related

Category: SCIENCE AND TECHNOLOGY

1. In high-res: unfolding mysteries of the night sky

Syllabus: Awareness in the fields of Space

Prelims: About James Webb Space Telescope (JWST), SMACS 0723, NGC 3324, Southern Ring Nebula, Stephan's quintet, WASP-96 b3

Mains: Significance of JWST and its observations

Context

The release of images by NASA captured by the James Webb Space Telescope (JWST)

James Webb Space Telescope (JWST)

- The James Webb Space Telescope (JWST) or also called Webb is the largest infrared telescope which was mainly designed to conduct infrared astronomy.
- The telescope was launched in an Ariane 5 rocket from French Guiana in 2021.
- It is a part of an international collaboration between the NASA, the European Space Agency (ESA), and the Canadian Space Agency (CSA)
- The Goddard Space Flight Center of NASA is managing the development effort.
- The telescope is expected to help in the study of aspects like the phases of the history of the Universe, the Big Bang, the formation and evolution of the solar system.

To read more about - [James Webb Space Telescope \(JWST\)](#)

Images taken by JWST

The first five images released so far by NASA includes that of:

- SMACS 0723

- NGC 3324
- Southern Ring Nebula
- Stephan's quintet
- WASP-96 b3

SMACS 0723 cluster of galaxies



Image Source : The

Hindu[/caption]

- The SMACS 0723 is said to be a cluster of galaxies that is nearly 5.12 billion light-years away and is located in the direction of the southern constellation of Volans.
- The SMACS 0723 galaxy cluster is large and, according to Einstein's general relativity theory it distorts the fabric of spacetime.
- The deep field images of the SMACS 0723 cluster of galaxies taken by the JWST have ones that date back to the times when the first stars were born.
- One of the images appears to be 4.6 billion years ago, which is said to be the time when the Sun and the Earth evolved.

NGC 3324

Image source: The Hindu[/caption]

- The JWST has captured an image of NGC 3324 (interstellar gas cloud) which is situated in the direction of the Carina Nebula about 7,600 light-years from Earth.
 - The Carina Nebula which is also called the Eta Carinae Nebula is a large, complex area of bright and dark nebulosity in the constellation Carina, located in the Carina–Sagittarius Arm of the Milky Way galaxy.
 - It is considered to be about 8,500 light-years from Earth.
- NGC 3324 is said to be a home to many more massive and young stars than the Sun.
 - Stars and star clusters are formed through these giant interstellar gas clouds and hence they are regarded as "star nurseries"
- The image of the edge of the NGC 3324 is called the "Cosmic cliff" which appears in the shape of mountains and valleys.
 - However, the "steam" that appears to rise from the celestial "mountains" is in reality a hot, ionized gas and hot dust streaming away from the nebula.

Southern Ring Nebula



Image Source: The Hindu[/caption]

- JWST has also revealed images of the Southern Ring planetary nebula (NGC 3132) which is also called the Eight-Burst Nebula.
 - Planetary nebulae are the shells of gas and dust ejected from dying stars.
- It is situated about 2,500 light years away from the earth in the constellation Vela.
- The image captured by JWST shows the consecutive waves of expelled shells.

Stephan's quintet



Image Source: The Hindu[caption]

- Stephan's Quintet is a visual grouping of five galaxies and these five galaxies of Stephan's Quintet are also together known as the Hickson Compact Group 92 (HCG 92).
- It is situated in the constellation Pegasus and around 290 million light-years away from Earth
- It was discovered by the French astronomer Édouard Stephan in 1877.
- Four of these galaxies are close together and are caught up in a cosmic dance.

WASP-96 b3

- WASP-96 b is a hot gas giant exoplanet that orbits a Sun-like star which is about 1500 light years away from Earth situated in the constellation Phoenix
- The planet orbits extremely close to its star and completes one orbit in less than 3 and half Earth-days.

- A transmission spectrum made from a single observation using JWST's Near-Infrared Imager and Slitless Spectrograph (NIRISS) reveals the atmospheric characteristics of WASP-96 b.

Significance of JWST and its observations

- JWST with its sharp vision, large light-collecting area and better ability to observe invisible infrared regions is expected to help expand the ability to understand the cosmos.
- The JWST collects more photons than any other infrared telescopes and can even observe and detect even the faintest flicker from the most distant regions of the cosmos.
- JWST's Near-Infrared Camera (NIRCam) provides stunning images with rich details about the features of the objects. This ability of JWST helps reveal details about celestial objects that were previously unknown to astronomers.
- The observations of JWST will act as a foundation for astronomers to use the JWST data and study further about celestial phenomena.
- The spectroscopic observation of JWST reveals that there is a significant amount of water vapour present in the WASP-96 b's atmosphere but due to severe heat, WASP-96 cannot host life.
 - This same technique can be used by astronomers to examine other exo-planets that are in the habitable zone of the central star as detecting water vapour, hydrocarbons, methane, etc. indicate the presence of life.

Nut graf: The spectroscopic observations and images captured by the JWST are said to be a milestone in the history of astronomy as it provides deeper insights into the history and the evolution of the universe.

D. GS 4 Related

Nothing here for today!!!

E. Editorials

Category: INTERNATIONAL RELATIONS

Syllabus: Effect of policies and politics of developed and developing countries on India's interests

Mains: Challenges and opportunities in India-South Korea relations and key recommendations

Context

This article talks about the current state of [India and South Korea relations](#), various opportunities and challenges to the same.

Challenges to India-South Korea relations

- In recent years, India and the Republic of Korea (South Korea) have witnessed a divergence in their national policies.
 - This was seen in the case of the multilateral security grouping of Quad (the U.S., Australia, India and Japan) wherein South Korea has moved away from grouping, while India has actively participated in it.
- The trade relations between the two countries was also taking place at a slow pace.
- Further, the efforts by the two countries to upgrade their Comprehensive Economic Partnership Agreement (CEPA) agreement has also not yielded intended results.

Opportunities to improve the bilateral relations between the two countries

- Change in South Korea's national policies
 - The newly elected President has brought about a paradigm shift in South Korean foreign and security policies.
 - South Korea under the new leadership aims 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”.

- This change in South Korea’s policies is expected to bring about multiple opportunities for a multi-dimensional India- Korea partnership.
- **Changes in South Korea’s relations with China**
 - South Korea had signed the “three no’s” agreement with China which includes: no additional Terminal High Altitude Area Defense (THAAD) deployment; no participation in the U.S.’s missile defence network, and no establishment of a trilateral military alliance with the U.S. and Japan.
 - However, South Korea is looking to correct its heavy dependence and tilt towards China and this is expected to create new economic opportunities for India and South Korea.

Defence sector

- In 2020, India and South Korea signed a Roadmap for Defence Industries Cooperation agreement but it could not be achieved due to the lack of political and strategic alignment.
- Advanced defence technologies and modern combat weapons also have a huge potential for cooperation between the two countries.
- **New opportunities**
 - The strategic alignment and convergence between the two countries will unlock opportunities in areas such as public health, green growth and digital connectivity.
 - The two countries can further enhance trade investments and improve supply chains and can target bilateral trade worth \$50 billion by 2030.

Recommendations

- **India must try to include the participation of South Korea in various maritime security exercises in the Indian Ocean like the Malabar and other exercises with Quad countries.**
 - This will help improve India’s naval influence in the Indo-Pacific region.

- There is a need for strengthening a trilateral security dialogue between India, South Korea and Japan as it helps formulate joint regional security policies.
- South Korea should be seen as the fourth pillar in India's Indo-Pacific strategy along with countries like Japan, Australia, and Vietnam.
- Efforts from both the countries must be focused on enhancing the bilateral partnership at the political, diplomatic and security domain levels.
 - South Korea's advancements in the fields of critical technologies, cybersecurity, and outer space can contribute immensely to India.
- India must also help South Korea to counter Chinese pressure and the threats from North Korea as a secure, strong, and democratic South Korea can be a long-term partner with India

Nut graf: Both India and South Korea must focus on creating opportunities for a multidimensional partnership between the countries as it will not only be mutually beneficial to both the countries but also for the entire Indo-Pacific region.

Category: POLITY

2. The President is not a mere rubber stamp

Syllabus: Structure, organization and functioning of the Executive

Mains: Critical evaluation of the role of President in India and the associated provisions in the constitution of India.

Context

Upcoming Presidential elections in India has brought the debate about the President being just a rubber stamp.

Arguments saying that the office of President is a mere rubber stamp

- According to Article 53 of the Constitution, “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.”
 - This effectively means that the President can exercise his powers only on the aid and the advice of the Council of Ministers.
- Such a provision has made critics feel that the office of the President in India is a mere rubber stamp.
- Political experts in the past have felt that the President is “sort of a mere gramophone of the Prime Minister.”
- Dr. B.R. Ambedkar said that “Our President is merely a nominal figurehead. He has no discretion; he has no powers of administration at all.”

Arguments that highlight the significance of the office of President

- Election of the President - President is elected by an indirect election through an electoral college which according to Article 54 consist of only the elected members of both Houses of Parliament and the elected members of the State and Union Territory Assemblies.

Value of the vote of an MLA

$$= \frac{\text{Total population of state}}{\text{Total number of elected members in the state legislative assembly}} \times \frac{1}{1000}$$

Value of the vote of an MP =

$$\frac{\text{Total value of votes of all MLAs of all states}}{\text{Total number of elected members of Parliament}}$$

- The value of vote plays an important role as it takes into account the population of individual states and eventually population of the country
- This gives a wider base to the President than a mere vote by the legislators on the basis of one member, one vote.
- This entrusts the President with a greater moral authority.

Legislative powers - The President of India has the powers to disagree with the decision of the Council of Ministers, caution them and counsel them.

- The President can send back the decisions of the Cabinet and ask them to reconsider it once.
- Through this provision, the Constitution of India has ensured that the office of President is vigilant and responsive.
- This provision also gives the President the freedom to take a broader view of things which is not influenced by the political view of the executive.

- Oath of the President - Through the oath, the President promises to preserve, protect and defend the Constitution and devote himself/herself to the service and the well-being of the people of India.
 - These promises ensure that the President has a much bigger role than being just a rubber stamp or the gramophone of the Prime Minister or the council of ministers.

To learn more about - [Office of President](#)

Nut graf: The office of President is not merely a rubber stamp as the President plays a crucial role in safeguarding the rule of law of the country and the liberty of the citizens as he is oath-bound to preserve, protect and defend the Constitution.

F. Prelims Facts

Nothing here for today!!!

G. Tidbits

1. 'India has achieved clean energy targets 9 years before deadline'

- India has installed 162 GW of renewable energy capacity, which is 41% of the 402 GW of electricity installed by November 2021

- In 2015, India committed to ensure that 40% of its energy would be from renewable sources by 2030 as part of its Nationally Determined Contributions (NDC) and India has achieved clean energy targets nine years ahead of schedule.
- Further, the Prime Minister of India committed to install 500 GW of renewable energy by 2030
- Despite being among the lowest per capita emitters of the world, India has invested heavily in energy transition.

2. India's imports from China rose to a record in first half of 2022

- India's imports from China reached a record \$57.51 billion in the first half of 2022
- The trade deficit is also widening as India's exports to China dropped by 35% and accounts for only \$9.57 billion of the total \$67.08 billion bilateral trade.
- India's biggest imports include that of electrical and mechanical machinery, chemicals used in industrial production, active pharmaceutical ingredients, auto components. India had also imported large quantities of medical supplies during the pandemic.

H. UPSC Prelims Practice Questions

Q1. Consider the following statements: (Level – Medium)

1. The Indian National Congress faced its first split post independence in 1969.
2. The “old” Congress retained the party symbol of a pair of bullocks carrying a yoke; the breakaway faction was given the symbol of a cow with a calf.
3. In case of a split in a political party, the Election Commission of India determines the allocation of the party symbol.

Choose the correct code:

1. 1 & 2 only
2. 2 & 3 only
3. 1 & 3 only

4. All of the above

Answer: d

Explanation:

- Statement 1 is correct, In 1969, the then Prime Minister of India Indira Gandhi was expelled from the Congress party for violating the party discipline.
 - The party finally split with Indira Gandhi setting up a rival organization, which came to be known as Congress (R)
- Statement 2 is correct, The “old” Congress retained the party symbol of a pair of bullocks carrying a yoke; the breakaway faction was given the symbol of a cow with a calf
- Statement 3 is correct, In case of a split in a political party, the Election Commission of India determines the allocation of the party symbol.

Q2. Consider the following statements with regards to Article 21: (Level – Medium)

1. In *Maneka Gandhi v. Union of India* (1978), the Supreme Court said that ‘personal liberty’ in Article 21 covers “a variety of rights which go to constitute the personal liberty of man”.
2. Earlier, In *Satwant Singh Sawhney v. D. Ramarathnam Assistant Passport Officer* (1967), the right to travel abroad was read as an intrinsic part of Article 21.

Choose the correct code:

1. 1 only
2. 2 only
3. Both 1 & 2
4. None of the above

Answer: c

Explanation:

- Statement 1 is correct, In Maneka Gandhi v/s Union of India (1978) case, the Supreme Court said “personal liberty” in Article 21 is “of the widest amplitude” covering “a variety of rights which go to constitute the personal liberty of man”
- Statement 2 is correct, In Satwant Singh Sawhney v/s. D. Ramarathnam Assistant Passport Officer (1967) case, the right to travel abroad was read as an intrinsic part of Article 21.

Q3. Consider the following statements with regards to India’s climate change commitments:(Level – Easy)

1. In 2015, India committed to ensuring that 40% of its energy would be from renewable sources by 2022 as part of its Nationally Determined Contributions (NDC).
2. India has already installed 162 GW of renewable energy capacity, which is 41% of the 402GW of electricity installed.
3. PM Modi raised the target at the UN COP26 by committing to install 500 GW of renewable energy by 2030.

Choose the correct code:

1. 1 & 2 only
2. 2 & 3 only
3. 1 & 3 only
4. All of the above

Answer: b

Explanation:

- Statement 1 is not correct, In 2015, India committed to ensure that 40% of its energy would be from renewable sources by 2030 as part of its Nationally Determined Contributions (NDC).
- Statement 2 is correct, India has installed 162 GW of renewable energy capacity, which is 41% of the 402 GW of electricity installed by November 2021

- Statement 3 is correct, the Prime Minister of India committed to install 500 GW of renewable energy by 2030 at the UN COP26 (2021)

Q4. Which of the following best defines 'windfall tax'? (Level – Easy)

1. A higher tax rate on sudden big profits levied on a particular company or industry.
2. A lower tax rate to boost economic recovery.
3. A short term tax to reduce the government's fiscal deficit.
4. A retrospective tax decision.

Answer: a

Explanation:

- A windfall tax is a higher tax rate on profits that ensue from a sudden windfall gain to a particular company or industry.
- The windfall tax is a one-off tax imposed by a government on a company on an unforeseen or unexpectedly large profit, especially unfairly obtained.

Q5. Consider the following animals: (Level – Difficult)

1. Hedgehog
2. Marmot
3. Pangolin

To reduce the change of being captured by predators, which of the above organisms rolls up/roll up and protects/protect its/their vulnerable parts?

1. 1 and 2
2. 2 only
3. 3 only
4. 1 and 3

Answer: d

Explanation:

- Hedgehogs have spikes on their back, which help to deter any threat when they roll up and protect their vulnerable parts.
- Marmots are not known to have rolling up mechanism
 - Instead, Marmots build elaborate burrows for denning and protection from predators.
- Pangolins have hard scales on their back which help to protect its vulnerable parts when it rolls up.

Hence option d is the correct

I. UPSC Mains Practice Questions

1. A stronger partnership between India and South Korea can have a long-term positive impact for both countries and the Indo-Pacific region. Analyze. (250 words; 15 marks) (GS II - International Relations)
2. India while taking all measures to reap the current demographic dividend should also prepare itself for a future diminishing of this demographic dividend. Comment (250 words; 15 marks) (GS I - Population and associated issues)