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# CURRENT AFFAIRS

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**GS 2 : Polity, Governance, International Relations**

**1. A strategy for India in a world that is adrift**

This article discusses new situations prompted by the tectonic shifts in India's internal and external environment to take another look at India's path to power in a world between orders.

**New global order: No Order**

- **Multipolarity:** The world is today adrift. We are neither in a bipolar Cold War nor in a multipolar world, though perhaps tending towards a world of several power centres.
- **Lack of cohesion:** The lack of a coherent international response to the COVID-19 pandemic is proof of an absence of international order and of the ineffectiveness of multilateral institutions.
- **Climate ignorance:** So is the ineffective international response to climate change and other transnational threats.

**Major shifts in global order**

- Secular stagnation
- Retreat from globalisation
- Regionalisation of trade
- Shifting balance of power
- Rise of China and others
- Structural China-United States strategic rivalry

All above factors have shifted the geopolitical and economic centres of gravity from the Atlantic to Asia.

**Major Concerns**

- **Chauvinism:** Inequality between and within states has bred a narrow nationalism and parochialism.
- **Existential threats:** We are entering a new polarised information age, and face ecological crises of the Anthropocene, making climate change an existential threat.

## Asia as the nucleus: With focus on China

- **Shift of focus by the US:** Over the next decade we expect Asia to remain the cockpit of geopolitical rivalries, and that the US remains the most formidable power, though its relative power is declining.
- **China at the centre:** China sees a window of opportunity but acts in a hurry, suggesting that she believes that window may close or is already closing due to push back from the West and others.

## China's expansionism

- China's crowded geography constrains her both on land and at sea.
- Hence it expects her profile and power to continue expanding, particularly in our periphery.
- The result is likely continued friction, some cooperation, and quasi-adversarial relations between India and China, which others will take advantage of.
- Overall, we do not expect conventional conflict between the great powers in Asia, though other forms and levels of violence and contention in the international system will rise, with Taiwan a special case.

## Opportunities in disguise for India

- The uncertainty and changing geopolitical environment clearly pose considerable challenges to Indian policy.
- However, it also throws up certain opportunities, enhancing our strategic options and diplomatic space, if we adjust policies internally and externally, particularly in the subcontinent.

## How can India reap the benefits?

- **Enhancing ties with the US:** Increasing security congruence with the US could enable growing cooperation in fields significant for India's transformation: energy, trade, investment, education and health.
- **Climate cooperation:** Other areas in which India and the U.S. could increase cooperation are: climate change and energy, tech solutions for renewable energy, and on digital cooperation.
- **Neighbourhood first:** Several middle powers like Sri Lanka, Bangladesh, Indonesia in the neighbourhood are now India's natural partners.
- **Digital space:** This time of transition between orders is also when new standards and norms are being developed, particularly in the digital space. India can and must be present at the creation.

- **Maritime cooperation:** At sea, the balance is today more favourable to us than before, possibly more so than on the continent. India must bat for the creation of a Maritime Commission in IOR.

### **Bottlenecks in India's neighbourhood policy**

- **Over securitisation of policy:** towards our neighbours has driven trade underground, criminalised our borders.
- **Conducive environment for entry of China:** This has enabled the large-scale entry of Chinese goods destroying local industry in the northeast.
- **Lack of self-strengthening:** While lessening dependence on China, and seeking external balancing, our primary effort has to concentrate on self-strengthening.
- **Lack of socio-political enterprise:** If there is one country which in terms of its size, population, economic potential, scientific and technological capabilities can match or even surpass China, it is India.

### **Way forward for India**

#### **(A) Bringing multipolarity in Asia.**

- The way forward should be based on the core strategic principles in Non-Alignment 2.0 which are still relevant: independent judgement, developing our capacities, and creating an equitable and enabling international order for India's transformation.
- Today's situation makes India's strategic autonomy all the more essential.

#### **(B) Making an issue-based coalition**

- India must adjust to changing circumstances. We have no choice but to engage with this uncertain and more volatile world.
- One productive way to do so would be through issue-based coalitions including different actors, depending on who has an interest and capability.

#### **(C) Reviving SAARC**

- India must craft and reinvigorate regional institutions and processes in the neighbourhood, reviving the South Asian Association for Regional Cooperation (SAARC) for instance.
- India could be the primary source of both prosperity and security in the neighbourhood – the subcontinent and the Indian Ocean Region.

## Conclusion

- Economic policy must match political and strategic engagement.
- Globalisation has been central to India's growth.
- A more active regional and international role for India is incompatible with a position on the margins of the global economy.
- Self-reliance in today's world and technologies can only be realised as part of the global economy.
- We should not imitate China's claims to being a civilisational state and its adoption of victimhood.
- Instead, we should affirm our own strength and historic national identity.

## 2. Government asks Supreme Court to set norms for quota in promotions

### Background

- The top court has called it "disturbing" that the Union government did not discontinue reservation in promotion for people belonging to SC/STs.
- It referred to their numbers exceeded the upper ceiling of 15% and 7.5% respectively, of positions in some classes of central government jobs.

### What was the case?

- The Union government has been pressing for reservation in promotion proportionate to the population of SCs and STs as per a 1995 judgment by the top court in the RK Sabharwal case.
- It wants it to be left open to the Centre and states to decide on promotional avenues for SCs and STs.
- It claims that the condition regarding collection of quantifiable data to show inadequacy of representation of SCs/STs is "vague".
- Advocates representing general category have contended that the reservation cannot be for an indefinite period and that it must stop as soon as the upper ceiling has been reached.
- Further, they have emphasised that reservation in promotion should be cadre-based only after quantifiable data is collected and the creamy layer has been excluded.

### Defying the need for quantifiable data

- Attorney General sought to convince the court that the roster system, based on the proportionate population of SCs/STs, has been working quite well in all government departments.

- The condition of collecting quantifiable data on inadequacy of representation of SCs/STs may not be required at all.
- He urged that there is no need to verify any further or collect quantifiable data after the roster system.

### Referring to the Nagaraj Case

- Article 16(4A) of Indian Constitution allows reservations to SCs and STs in promotions, as long as the government believes that they are not adequately represented in government services.
- In 2006, a Constitution bench's ruling in the M Nagaraj case made it incumbent upon the state to collect quantifiable data showing inadequacy of representation in public employment.
- This was to be done in addition to maintaining overall administrative efficiency.

### Why such demand by the Centre?

- The Attorney General has said that it is tough for a member of the SC/ST to reach the 'Group A' category jobs.
- The time has come for the apex court to firm up and draw the basis for reservation in promotions for SC/ST candidates to fill up vacancies in top jobs.
- The Bench referred to records filed before it to note that there was low representation of SC/ST category in Group A jobs.
- Instead of improving the situation in the Group A ranks, the court said, efforts are on to ensure adequate representation in Groups B and C. This was not fair, it remarked.

## GS 3 : Economy, Science and Technology, Environment

### 3. Chemistry Nobel to duo for developing Organo-Catalysis

The Nobel Prize for chemistry has been awarded to German scientist Benjamin List of the Max Planck Institute and Scotland-born scientist David WC MacMillan of Princeton University for their work on developing an organo-catalyst.

## What are Catalysts?

- When two or more compounds react to form new compounds, the process is often aided by other chemicals that do not change themselves but help speed up the reaction.
- These catalysts have been known at least since the middle of the 19th century, and are used in virtually every chemical process these days.
- Till around 2000, only two kinds of chemicals were known to act as effective catalysts: metals, mainly heavier metals; and enzymes, naturally occurring heavy molecules that facilitate all life-supporting biochemical processes.
- Both these sets of catalysts had limitations.

## Issues with conventional catalysts

- Heavier metals are expensive, difficult to mine, and toxic to humans and the environment.
- Despite the best processes, traces remained in the end product; this posed problems in situations where compounds of very high purity were required, like in the manufacture of medicines.
- Also, metals required an environment free of water and oxygen, which was difficult to ensure on an industrial scale.
- Enzymes on the other hand, work best when water is used as a medium for the chemical reaction.
- But that is not an environment suitable for all kinds of chemical reactions.
- List and MacMillan, the both, started experimenting with simple organic compounds.
- Organic compounds are mostly naturally occurring substances, built around a framework of carbon atoms and usually containing hydrogen, oxygen, nitrogen, sulfur, or phosphorus.
- Life-supporting chemicals like proteins, which are long chains of amino acids (carbon compounds containing nitrogen and oxygen) are organic.
- Enzymes are also proteins, and therefore, organic compounds.
- List and MacMillan started working with individual amino acids in enzymes – and struck gold.

## Asymmetric catalysis

- Substances can have exactly the same chemical composition and molecular formula; yet differ widely in their properties. They are known as isomers.
- One type of isomers are those that differ in the way individual atoms are oriented in three-dimensional space.



- Two molecules could be exactly the same, except that they are mirror images of each other, like our hands.
- For simplicity, scientists often refer to these molecules as left-handed or right-handed.
- This simple difference can sometimes have enormous consequences because it allows the molecules to bind in different locations when they interact with other molecules.
- The end product in a chemical reaction is usually a mixture of left-handed and right-handed molecules.
- List and MacMillan discovered that by using a natural compound like an amino acid as a catalyst, they were obtaining only one specific mirror image of the end-product.
- This was later named asymmetric catalysis.

### Significance of their discovery

- The new catalysts, derived from naturally occurring chemicals, were greener and cheaper and ensured that the end product of the chemical reaction was of a specific variety.
- The end product need not go through a purification process to yield the desired type of compound.
- The discovery being awarded the Nobel Prize in Chemistry 2021 has taken molecular construction to an entirely new level.
- Its uses include research into new pharmaceuticals and it has also helped make chemistry greener.

### 4. Mosquirix: First malaria vaccine to get WHO nod

In a historic move, the World Health Organization (WHO) has endorsed the first anti-malarial vaccine, as mankind enters a key turning point in a battle waged relentlessly over decades between man and mosquito, the vector.

#### Mosquirix

- RTS,S/ASO1 (RTS.S), trade name Mosquirix acts against *P. falciparum*, the most deadly malaria parasite globally, and the most prevalent in Africa.
- The vaccine was able to prevent approximately 4 in 10 cases of malaria over a 4-year period in Africa.
- This is the first malaria vaccine that has completed the clinical development process.
- It is also the first malaria vaccine to be introduced by three national ministries of health through their childhood immunization programs – more than 800,000 children in Ghana, Kenya, and Malawi.



- have been vaccinated, and are benefiting from the added protection provided by the vaccine as part of a pilot program.

### **How the vaccine can help?**

- WHO's recommendation is based on the advice of its two global advisory bodies, one for immunization and the other for malaria.
- WHO has recommended that in the context of comprehensive malaria control, the RTS,S/AS01 malaria vaccine be used for the prevention of P. falciparum malaria in children living in regions with moderate to high transmission as defined by it.
- The malaria vaccine should be provided in a schedule of 4 doses in children from 5 months of age for the reduction of malaria disease and burden.

## **5. Cabinet clears 4,445-cr. textile parks**

### **In News:**

The Union Cabinet has approved the setting up of seven Mega Integrated Textile Region and Apparel (PM MITRA) Parks.

### **Details:**

- The PM MITRA Parks are being set up at an outlay of ₹4,445 crore.
- The mega parks scheme will include brownfield and greenfield projects, spread over five years.
- The parks would be developed by a Special Purpose Vehicle (SPV) owned by the Central and State governments and would get two kinds of support.
- Development Capital Support, aimed at helping develop infrastructure, would fund 30% of the project cost with a cap of ₹500 crore for greenfield projects and ₹200 crore for brownfield projects.
- A separate Competitiveness Incentive Support would be limited to ₹300 crore per park.
- States offering the cheapest land (contiguous and encumbrance-free land of minimum 1,000 acres) and facilities such as adequate electricity and water would be selected through a transparent challenge route.
- The SPV would select a Master Developer to set up and maintain the park for a specified period. Of the park's area, 50% would be earmarked for manufacturing activity, 20% for utilities, and 10% set aside for commercial development.

- Industries in the parks would comprise four categories – units investing 300 crore or more, units investing 100-300 crore, investors of less than 100 crore and tenant units.

## 6. Trade multilateralism at risk

### In News

- The article discusses the challenges faced by the World Trade Organization (WTO).

### Background

- The WTO was created in 1995.
  - It deals with the rules of trade between countries marking the biggest reform of international trade emphasizing free-market capitalism.
  - It provides a forum for its members to negotiate on trade issues. It operates a body of rules in the form of the WTO agreements.
  - Finally, it provides a Dispute Settlement Mechanism (DSM) to resolve disagreements over the rules between members.

### Appellate Body (AB):

- It is a standing body of seven persons that hears appeals from reports issued by panels in disputes brought by WTO Members.
- The Appellate Body can uphold, modify or reverse the legal findings and conclusions of a panel, and Appellate Body Reports are adopted by the Dispute Settlement Body (DSB) unless all members decide not to do so.
- The Appellate Body has its seat in Geneva, Switzerland.

### Issue Area

- The establishment of WTO was a push by the USA to further its economic agenda. However, from the past few years, the United States seems to have lost interest in it as it feels the WTO hasn't served the American national interest.
- This is largely because the USA was not able to contain the rise of China and in several trade-related disputes China has had the upper hand.

### Impact

- Since December 2019, the AB has stopped functioning due to rising vacancies.

- United States' blocking of new appointments to the WTO's Appellate Body (AB) has paralyzed the entire mechanism for resolving trade disputes between countries.
- The U.S. also **vetoed proposals to find solutions to this impasse**, including stalling the proposal of the European Union to establish an alternative interim appellate arbitration mechanism.
- Pending appeals to the Appellate Body has subsequently increased to around 20 cases, giving an option to countries who don't want to comply with the WTO panel decisions to appeal against the decision making the ultimate process a mockery.

### Other challenges

1. First, no solution has been found to the public stockholding for food security purposes despite a clear mandate to do so in the 2015 Nairobi ministerial meeting.
  - India offers its farmers Minimum Support Price (MSP).
  - The WTO rules allow countries to procure, stock and distribute food. However, if such procurement is done at an administered price such as the MSP that is **higher than the external reference price**, then the budgetary support provided shall be considered trade-distorting and is subject to an overall cap.
  - With rising prices and the need to do higher procurement to support farmers and provide food to the poor at subsidised prices, India might breach the cap.
  - Although countries have agreed that legal suits will not be brought if countries breach the cap, it is imperative to find a permanent solution such as not counting MSP-provided budgetary support as trade-distorting.
2. Second, India and South Africa had proposed a TRIPS waiver to overcome intellectual property (IP)-related obstacles in increasing accessibility of COVID-19 medical products, including vaccines.
  - The WTO member countries continue to disagree on the need of waiving the Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement for COVID-19 related medical products.
  - Recommendation
    - The WTO needs to adopt a waiver in the upcoming ministerial meeting.
3. Third, the WTO is close to signing a deal on **regulating irrational subsidies** provided for fishing that has led to the overexploitation of marine resources by countries like China, which is the largest catcher and exporter of fish.

Fisheries are a key source of protein and livelihood for millions in coastal communities.

- Fishing subsidies directly contribute to overfishing.
- These subsidies effectively mean that taxpayers are paying industrial boats to degrade the environment and to destroy the food security and livelihood of vulnerable coastal communities.
- By fueling unfair competition between large fleets and individual artisanal fishermen, they are also fostering inequality.
  
- However, this agreement should strike a balance between conserving ocean resources and the livelihood concerns of millions of marginal fishermen.
- Recommendation
  - An effective special and differential treatment provision that accords adequate policy space is what India and other developing countries should insist on.
  
- 4. Fourth, concerns about WTO has led to the emergence of mega plurilateral trade agreements.
  - Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) – a treaty between 11 countries.
  - Regional Comprehensive Economic Partnership (RCEP) agreement between Asian economies and countries down under.
  - These agreements have a divided approach which not only fragments the global governance on international trade but also pushes the multilateral order to the margin, converting the WTO to what some call an “institutional zombie”.

### Way forward

- Notwithstanding its flaws, the WTO is the only forum where developing countries like India, not a party to any mega plurilateral trade agreements, can push for evolving an inclusive global trading order that responds to the systemic imbalances of extant globalisation.
- A rules-based global order has to be established as requested by Prime Minister Narendra Modi, during his recent U.S. visit.

### Conclusion

- The upcoming WTO ministerial meeting in Geneva provides an opportunity to rescue this critical global institution from irrelevance.

## THE INDIAN EXPRESS

### GS 2 : Polity, Governance, International Relations

#### 1. Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP)

**In News:** Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) has completed the target of opening of 8,300 Mantri Bhartiya Jan Aushadhi Kendras (PMBJKs), thus achieving the target of FY 2021-22 in just 6 months.

- All the districts of the country have been covered under Pradhan Mantri Bhartiya Jan Aushadhi Pariyojana (PMBJP).
- Effective IT-enabled logistics and supply-chain systems for ensuring real-time distribution of medicines at all outlets have also been introduced.
- Product basket of PMBJP presently comprises 1,451 drugs and 240 surgical instruments. Further, new medicines and nutraceutical products like glucometer, protein powder, malt-based food supplements, protein bar, immunity bar, etc. have been launched.

#### Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP)

- It is being run by the Department of Pharmaceuticals, Ministry of Chemicals & Fertilizers, Government of India
- **Vision:** To bring down the healthcare budget of every citizen of India through providing “Quality generic Medicines at Affordable Prices”.
- Pradhan Mantri Janaushadhi Kendra is a medical outlet opened under the scheme which makes quality medicines available at affordable prices for all.
- **Janaushadhi Sugam** a mobile application for Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) facilitates the public by providing a digital platform at the tip of their fingers.

#### 2. A strategy for India in a world that is adrift

**In News:** Today, we are neither in a bipolar Cold War nor in a multipolar world, though perhaps tending towards a world of several power centres.

- The lack of a coherent international response to the COVID-19 pandemic is proof of an absence of international order and of the ineffectiveness of multilateral institutions.

### **Changing Geopolitical Development**

- Secular stagnation in the global and Indian economies
- The regionalisation of trade
- Rise of China
- The geopolitical and economic centres of gravity have shifted from the Atlantic to Asia
- Structural China-United States strategic rivalry.
- Inequality between and within states has bred a narrow nationalism and parochialism.
- Retreat from globalisation
- Emergence of new polarised information age
- Ecological crises and climate change as an existential threat.

### **Rise of China & its implication on India**

- Over the next decade Asia will become the main platform for geopolitical rivalries.
- U.S. remains the most formidable power, though its relative power is declining.
- China sees a window of opportunity but acts in a hurry believing that window may close or is already closing due to pushback from the West and others.
- China's crowded geography constrains her both on land and at sea.
- There is a slim prospect of Chinese hegemony in Asia with its expanding profile & power, particularly in our periphery.
- The result is likely continued friction, some cooperation, and quasi-adversarial relations between India and China, which others will take advantage of.
- As neighbours and in the present situation, a mix of confrontation and cooperation is likely to continue to mark India's relations with China.
- Overall, we do not expect conventional conflict between the great powers in Asia, though other forms and levels of violence and contention in the international system will rise, with Taiwan a special case.

### **Opportunities for India amidst this transformation**



- **Increasing security congruence with the U.S.** could enable growing cooperation in fields significant for India's transformation: energy, trade, investment, education and health.
- Other areas in which India and the U.S. could increase cooperation are: climate change and energy, on tech solutions for renewable energy, and on digital cooperation.
- **Several middle powers** are now India's natural partners. There is also an increasing possibility of working with partners in the developing world building broader coalitions on issues of common interest.
- This time of transition between orders is also when **new standards and norms** are being developed, particularly in the **digital space**. India can and must be present while devising these new norms.

### Way Forward for India

- **Creation of a Maritime Commission**, a Bay of Bengal Initiative with partner countries, to further cement India's favourable position in maritime arena.
- Increasing what India does with South East Asia in maritime security, cybersecurity and counter-terrorism. India should **aim for multipolarity in Asia**.
- India's foreign policy should be based on the core strategic principles in Non-Alignment 2.0 which are still relevant:
  - Independent judgement
  - Developing our capacities
  - Creating an equitable and enabling international order for India's transformation.
- India has no choice but to engage with the uncertain and more volatile world. One productive way to do so would be through **issue-based coalitions** including different actors, depending on who has an interest and capability.
- **Self-strengthening** to reinvigorate India's interests in neighbourhood
  - The over securitisation of policy towards our neighbours has driven trade underground, criminalised our borders, and enabled large-scale entry of Chinese goods destroying local industry in the northeast.
  - While **lessening dependence on China**, and seeking external balancing, our primary effort has to concentrate on self-strengthening.
- **Globalisation** has been central to India's growth. Self-reliance in today's world and technologies can only be realised if India is a part of the global economy.



## GS 3 : Economy, Science and Technology, Environment

### 3. Uttar Pradesh largest emitter of PM2.5: CEEW

**In News :** According to an analysis by the Council on Energy, Environment and Water (CEEW), Uttar Pradesh is the largest emitter of PM2.5, the class of particulate matter considered most harmful to health.

#### Key takeaways

- The high emissions from U.P. were largely due to a significant share of PM2.5 emissions from solid-fuel use in households and, by virtue of being India's most populous State, it had a higher proportion of households relying on this form of fuel.
- **Other top polluters:** Maharashtra, Gujarat, Odisha, West Bengal, Madhya Pradesh, Bihar, Tamil Nadu, and Rajasthan
- **Common pollutants that were analysed:** PM2.5, PM10, NO<sub>x</sub> (nitrous oxides), SO<sub>2</sub> (sulphur dioxide), CO (carbon monoxide), NH<sub>3</sub> (ammonia), and NMVOC (non-methane volatile organic compounds).

#### Indian Government's initiatives

- The Government of India has launched the National Action Plan on Climate Change (NAPCC) in 2008 outlining eight National Missions on climate change. These include:
  - **National Solar Mission:** To establish India as a global leader in solar energy by creating the policy conditions for its deployment across the country
  - **National Mission for Enhanced Energy Efficiency:** To promote the market for energy efficiency by fostering innovative policies and effective market instruments.
  - **National Mission on Sustainable Habitat:** To promote understanding of climate change, its adaptation and mitigation, energy efficiency and natural resource conservation.
  - **National Water Mission:** Conservation of water, minimizing wastage and ensuring its more equitable distribution
  - **National Mission for Sustaining the Himalayan Ecosystem:** To develop a sustainable National capacity to continuously assess the health status of the Himalayan Ecosystem
  - **National Mission for a Green India:** Protecting; restoring and enhancing India's diminishing forest cover

- **National Mission for Sustainable Agriculture:** Enhancing agricultural productivity especially in rainfed areas focusing on integrated farming, water use efficiency, soil health management and synergizing resource conservation
- **National Mission on Strategic Knowledge for Climate Change:** To build a vibrant and dynamic knowledge system that would inform and support national action for responding effectively to the objective of ecologically

#### 4. Renaming of the Jim Corbett National Park

The Union Minister of State for Environment, Forest and Climate Change has recently proposed to change the name of Corbett National Park to Ramganga National Park.

##### Who was Jim Corbett?

- Born in Nainital in 1875, Edward James Corbett lived in India till Independence, after which he left for Kenya where he died in 1955.
- India's best known hunter, Corbett earned fame after he tracked down and killed a number of man-eating tigers and leopards (he is said to have killed over a dozen).
- An ace shot, Corbett was called upon regularly by the government to track and shoot man-eaters in the villages of Garhwal and Kumaon in Uttarakhand.

##### Corbett National Park

- Jim Corbett National Park is a national park in India located in the Nainital district of Uttarakhand state.
- The first national park in India, it was established in 1936 during the British Raj and named Hailey National Park after a governor of the United Provinces in which it was then located.
- It was renamed Ramganga National Park, named after the river that flows through it, shortly after Independence and was rechristened yet again as Corbett National Park in 1956.
- Jim Corbett had played a leading role in its establishment and had died the year before.
- The park was the first to come under the Project Tiger initiative.

##### The tiger reserve

- The national park along with the neighbouring 301-sq km-Sonanadi Wildlife Sanctuary together make the critical tiger habitat of the Corbett Tiger Reserve.

- With its hills, grasslands and streams, it is ideal tiger territory.
- The place from where Project Tiger was launched in 1973, with its tiger population at 163, it boasts of a single largest tiger population in a tiger reserve and one of the highest tiger densities in the country.

## 5. Boramdeo Tiger Reserve: Fourth TR in Chhattisgarh

The National Tiger Conservation Authority (NTCA) approved the Chhattisgarh government's proposal to declare the combined areas of the Guru Ghasidas National Park and Tamor Pingla Wildlife Sanctuary as a Tiger Reserve.

### Boramdeo Tiger Reserve

- The new Reserve is located in the northern part of the state, bordering Madhya Pradesh and Jharkhand.
- This will be the fourth Tiger Reserve in Chhattisgarh, after the Udanti-Sitanadi, Achanakmar, and Indravati Reserves.
- The proposal was considered under Section 38V(1) of The Wildlife (Protection) Act, 1972.
- This section says that the State Government shall, on the recommendation of the Tiger Conservation Authority, notify an area as a tiger reserve.

### A decade in making

- The Tamor Pingla Wildlife Sanctuary was identified as part of the Sarguja Jashpur Elephant Reserve in 2011.
- The Guru Ghasidas National Park used to be part of the Sanjay National Park in undivided Madhya Pradesh.
- Both were identified as reserve forests, and had been in line to be notified as Tiger Reserve since 2011.

### Medium-sized reserve

- The constituent units of the new Tiger Reserve, Guru Ghasidas National Park and Tamor Pingla Wildlife Sanctuary, are spread over 1,44,000 hectares (1,440 sq km) and 60,850 hectares (608.5 sq km) respectively.
- Guru Ghasidas National Park is in Koriya district; Tamor Pingla is in Surajpur district in the northwestern corner of Chhattisgarh.

## 6. Central Asian Flyway

The two-day meeting of 30 range countries of Central Asian Flyway has begun.

### What is Central Asian Flyway?

- Central Asian Flyway (CAF) is a flyway covering a large continental area of Eurasia between the Arctic Ocean and the Indian Ocean and the associated island chains.
- It comprises several important migration routes of waterbirds, most of which extend from the northernmost breeding grounds in Siberia to the southernmost non-breeding wintering grounds in West Asia, India, the Maldives and the British Indian Ocean Territory.
- The CAF range is essentially centred on one of the three major wintering areas of waterfowl in the Old World, namely the Indian subcontinent, the other two being Africa.
- There are also the African-Eurasian Flyway (AEWA) to the west, and south-east Asia in the East Asian - Australasian Flyway (EAAF) to the east.
- These wintering areas are geographically separate, and present entirely different ecological, historical and cultural situations.

### Range countries

- The flyway covers 30 countries of North, Central and South Asia and Trans-Caucasus.
- India is the core country of the CAF and supports 257 species of water birds.

### Major migratory birds

- **Critically Endangered** - northern bald ibis, white-bellied heron, Baer's pochard
- **Endangered** - greater adjutant
- **Vulnerable** - black-necked crane, Indian skimmer, lesser adjutant, masked finfoot, Socotra cormorant, wood snipe
- **Near Threatened** - black-headed ibis, lesser flamingo, pygmy cormorant, white-eyed gull

### Why designate such flyways?

- Approximately one in five of the world's 11,000 bird species migrate, some covering enormous distances.
- Conserving migratory birds requires cooperation and coordination along the entire flyway between countries and across national boundaries.

## 7. PM MITRA Parks

**In News:** Government has approved setting up of 7 Mega Integrated Textile Region and Apparel (PM MITRA) Parks with a total outlay of Rs. 4,445 crore in a period of 5 years.

- Will be developed by a Special Purpose Vehicle which will be owned by State Government and Government of India in a Public Private Partnership (PPP) Mode.
- World-class industrial infrastructure would attract cutting age technology and boost FDI and local investment in the sector
- Will offer an opportunity to create an integrated textiles value chain right from spinning, weaving, processing/dyeing and printing to garment manufacturing at 1 location
- Intended to generate ~1 lakh direct and 2 lakh indirect employment per park
- The Park will have -
  - Core Infrastructure: Incubation Centre & Plug & Play facility, Developed Factory Sites, Roads, Power, Water and Waste Water system, Common Processing House & CETP and other related facilities e.g. Design Centre, Testing Centres etc.
  - Support Infrastructure: Workers' hostels & housing, logistics park, warehousing, medical, training & skill development facilities

**'5F' Formula encompasses** - Farm to fibre; fibre to factory; factory to fashion; fashion to foreign

## 8. Deep Brain Stimulation

**In News :** Physicians at the University of California, San Francisco (UCSF) have successfully treated a patient with severe depression by recognising and tapping into the brain circuits linked with depressive brain patterns.

- The physicians have tried to reset these patterns, which they have said is the equivalent of using a pacemaker for the heart.
- The doctors used an existing technique called deep brain stimulation (DBS), customising it for this patient's case.

**What is deep brain stimulation (DBS)?**

- DBS is a surgical procedure in which electrodes are implanted into certain brain areas.
- These electrodes, or leads, generate electrical impulses that control abnormal brain activity.
- The electrical impulses can also adjust for the chemical imbalances within the brain that cause various conditions
- Traditional DBS has three components (refer above figure):
  - **The electrode, or lead.** This is a thin, insulated wire inserted through a small opening in the skull and implanted into a specific brain area.
  - **The extension wire.** This too is insulated, and is passed under the skin of the head, neck and shoulder, connecting the electrode to the third component of the system.
  - **The internal pulse generator (IPG)** is the third component. It is usually implanted under the skin in the upper chest.

#### What diseases can be treated with DBS?

- Conditions that are traditionally treated using DBS include dystonia, epilepsy, essential tumour, obsessive-compulsive disorder and Parkinson's disease.
- In treating depression, however, previous clinical trials with DBS has shown limited success because most devices are only able to deliver constant electrical stimulation to one area of the brain.
- During the latest research & treatment, scientists customised a new DBS device, which would stimulate the brain whenever it recognised the depressive pattern.
- Additionally, scientists had also found a neural biomarker that indicated the onset of symptoms. Using the customised DBS device, they were able to stimulate a different area of the brain, which in turn created **immediate therapy for the brain.**



### Prelims Practice Questions

#### 1. Which one of the following statements regarding Asteroids is incorrect?

- a. Although asteroids orbit the Sun like planets, they are much smaller than planets.
- b. Asteroids that actually cross Earth's orbital path are known as Near-Earth Asteroids.
- c. The total mass of all the asteroids in the main asteroid belt combined is less than that of Earth's Moon.
- d. The orbits of asteroids can be changed by Jupiter's massive gravity and by occasional close encounters with Mars or other objects.

Answer : b

- The United Arab Emirates has recently announced plans to send a probe to land on an asteroid between Mars and Jupiter to collect data on the origins of the universe.
- The project targets a 2028 launch with a landing in 2033, a five-year journey in which the spacecraft will travel some 3.6 billion kilometers.

#### Asteroids

- Asteroids, sometimes called minor planets, are rocky remnants left over from the early formation of our solar system about 4.6 billion years ago.
- Although asteroids orbit the Sun like planets, they are much smaller than planets.
- Most of this ancient space rubble can be found orbiting our Sun between Mars and Jupiter within the main asteroid belt.
- Asteroids range in size from Vesta – the largest at about 329 miles (530 kilometers) in diameter – to bodies that are less than 33 feet (10 meters) across.
- The total mass of all the asteroids combined is less than that of Earth's Moon.
- Most asteroids are irregularly shaped, though a few are nearly spherical, and they are often pitted or cratered.
- As they revolve around the Sun in elliptical orbits, the asteroids also rotate, sometimes quite erratically, tumbling as they go.
- More than 150 asteroids are known to have a small companion moon (some have two moons).
- There are also binary (double) asteroids, in which two rocky bodies of roughly equal size orbit each other, as well as triple asteroid systems.



## Asteroid Classifications

- **Main Asteroid Belt** - The majority of known asteroids orbit within the asteroid belt between Mars and Jupiter, generally with not very elongated orbits.
- **Trojans** - These asteroids share an orbit with a larger planet, but do not collide with it because they gather around two special places in the orbit (called the L4 and L5 Lagrangian points).
- There, the gravitational pull from the Sun and the planet are balanced by a trojan's tendency to otherwise fly out of orbit.
- It is thought that they are as numerous as the asteroids in the asteroid belt.
- There are Mars and Neptune trojans, and NASA announced the discovery of an Earth trojan in 2011.
- **Near-Earth Asteroids** - These objects have orbits that pass close by that of Earth.
- Asteroids that actually cross Earth's orbital path are known as Earth-crossers.

**2 Which of the following nations is a member of Quad, but not a member of AUKUS?**

- a. India
- b. UK
- c. USA
- d. Australia

**Answer: a**

**Explanation:**

- India is a member of the Quad (India, Australia, U.S. and Japan) but not a member of the AUKUS trilateral security partnership (Australia, U.S. and the U.K.).

**3. State of the World's Children Report, 2021 was published recently by?**

- a. UNICEF
- b. World Bank
- c. Global Child Forum
- d. UN Development Programme

Answer : a

### State of the World's Children Report 2021

- The UNICEF released its global flagship report titled, 'The State of the World's Children 2021'.
- This UNICEF report is the most comprehensive analysis of global trends affecting children.
- **Purpose** - The 2021 report details the impact of COVID-19 pandemic on the mental health of children, adolescents and caregivers.
- It examines how risk and protective factors in the home, school and community shape mental health outcomes.
- It urges global commitment, communication and action to promote good mental health for every child and young people.
- **Findings** - Globally, 1 in 5 young people of 15 to 24-years of age are feeling depressed or having little interest in doing things.
- In India, 1 in 7 young people (14% of 15 to 24-years of age) are reported often feeling depressed or having little interest in doing things.
- Children have not only been living an emotional tragedy, many are also at a higher risk of neglect and abuse.

### 4 The '13<sup>th</sup> amendment' to the Sri Lankan Constitution, often seen in the news, deals with -

- a. Non-interference by other nations in internal affairs of Sri Lanka
- b. Power devolution to provincial councils established to govern the nation's nine provinces
- c. Universal adult franchise
- d. Control over the nation's Exclusive Economic Zone

**Answer: b**

### Explanation:

- The Thirteenth Amendment is an amendment to the Constitution of Sri Lanka, passed in 1987, which created Provincial Councils in Sri Lanka. 13th Amendment mandates some degree of power devolution to the provincial councils established to govern the island's nine provinces.
- It is an outcome of the Indo-Lanka Accord of July 1987, signed by the then Prime Minister Rajiv Gandhi and President J.R. Jayawardene, in an attempt to resolve Sri Lanka's ethnic conflict that had aggravated into a full-fledged civil

war, between the armed forces and the Liberation Tigers of Tamil Eelam, which led the struggle for Tamils' self-determination and sought a separate state.

**5. Building 'Kalyana Mandapas' was a notable feature in the temple construction in the kingdom of**

- a. Chalukya
- b. Chandela
- c. Rashtrakuta
- d. Vijayanagara

**Answer: d**

**Explanation:**

- The chief characteristics of the Vijayanagara architecture were the constructions of tall Raya Gopurams or gateways, the Kalyana mandapam with carved pillars in the temple premises, the Garbhagriha, and the Amman shrine. Building 'Kalyana Mandapas' was a notable feature in the temple construction of this kingdom.

**6. With reference to the Committee on World Food Security (CFS), consider the following systems:**

1. The committee reports to the United Nations General Assembly.
2. It receives funding only through the World Food Programme (WFP).

Which of the statements given above is/are correct?

- A 1 only
- B 2 only
- C Both 1 and 2
- D Neither 1 nor 2

**Answer : A**

**Explanation**

- The **Committee on World Food Security (CFS)** is the foremost inclusive international and intergovernmental platform for all stakeholders to work together to ensure food security and nutrition for all.
  - The Committee **reports to the United Nations (UN) General Assembly** through the Economic and Social Council (ECOSOC) and to the Food and Agriculture Organisation (FAO) Conference. **Hence, statement 1 is correct.**
- CFS holds an annual Plenary session every October in FAO, Rome.
- CFS **receives its core funding equally from the FAO, the International Fund for Agricultural Development (IFAD) and the World Food Programme (WFP).** Hence, statement 2 is not correct.



## Mains Practice Questions

**1. Rapid globalisation has made money laundering an international problem. Explain this statement and discuss the policy level interventions taken by India to combat it.**

### Approach

- Briefly explain money laundering and globalization linking their relationship.
- Explain how globalization impacts money laundering.
- Discuss the recent legislative measures and policy efforts taken by India.
- Give a way forward.

**2. The government is losing sight of Parliament's primary role discussion and reconsideration. In the light of the given statement, discuss the significance and prevailing issues in the functioning of parliamentary committees. (150 words).**

### Approach

- Elaborate the given statement in the introduction.
- Discuss the significance of the Parliamentary Committee system.
- Highlight the prevailing issues associated with the Parliamentary Committee system.