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GENDER SELF-IDENTIFICATION

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INTERNATIONAL RELATIONS

(Geopolitics; India and the World; India and it's Neighbourhood)

4 UNITED NATIONS AND MULTILATERALISM

- Multilateralism is the coordinated diplomatic interaction between three or more stakeholders in international politics, but can be interpreted differently by different stakeholders. Sometimes it is understood as not only a diplomatic approach, but one that is committed to certain principles and set of values.
- The value basis of multilateral institutions such as the United Nations (UN) where many nations work towards a common goal to enable diversity and strengthen the weakened voice of the neglected majority has inevitably led to a tug of war between the true values of multilateralism and the increasing use of multilateral networks for individual countries' geostrategic purposes. This coupled with the rising criticism of the UN system's inability to respond to the growing global governance challenges has led to the questioning of the need for such an institution.



Is it an excessive layer in global governance or does it still play a pivotal role in enabling the international community to work together?

- o At the very core of multilateralism lies an interdependency that is key to the equilibrium needed to maintain peaceful global governance that promotes collaboration and equity.
- Functioning through an architecture of organisations, institutions and procedures based in treaties, international law and essentially in the UN charter, the UN has been imperative in preserving peace and addressing common global threats since its creation.
- Significant UN attainments beyond the domain of peace and security include the adoption of the Universal Declaration of Human Rights in 1948, the International Covenant on Civil and Political Rights and International Covenant on Economic, Social and Cultural Rights, as well as the creation and later achievements of specialised funds, programmes and technical agencies—such as the elimination of smallpox by the World Health Organization, the non-proliferation treaty of the International Atomic Energy Agency, and the General Agreement on Tariffs and Trade of the World Trade Organization.
- O Although the UN Charter is still as relevant now as in 1945, there is a well-acknowledged need to reform the functioning of the institution to uphold its legitimacy. According to article 108 of the UN treaty, changes to the UN structure and governance are extremely difficult because they must be adopted by two-thirds of the members of the General Assembly and ratified by two-thirds of the members of the United Nations, including all the five permanent members of the Security Council.
- O Although the UN is the defender of democratic values on a global scale, it is restricted by the permanent members of the Security Council to fulfil this goal for its own governance mechanism. Thus, the idea that the international society should act collectively through the UN Security Council to protect populations from war, ethnic cleansing, genocide and other crimes against humanity is a normative aspiration that is constantly challenged by the inability of the five permanent members to act cooperatively. The conflict in Syria is one recent demonstration of the level of dissonance that has led to a paralysis of action.
- o The UN preaches democracy and supports its values in countries all around the world, but cannot live by its own rule due to structural limitations that reflect an old political order that no longer corresponds to what the world looks like today. Multilateral platforms such as the UN are used by member states to pursue their



own national interests, clearly exemplified by how Chinese President Xi Jinping and his Russian counterpart Vladimir Putin were recent advocates and defenders of multilateralism in contrast to former US President Donald Trump. This is, however, not a new phenomenon, nor bound to disappear as global politics have always been the foundation underlying the multilateral order and will remain a structural force. That said, multilateral institutions must function within those parameters and other realities of our time, making UN reform and adaption to the global scene it operates in even more crucial.

- o Beyond the criticism of the UN, it is hard to deny the importance that it has had for globalisation and peace and the interlinkages between countries. Although it is easy to criticise the UN for shortcomings and mistakes made as part of its global machinery, it is hard to imagine how the world would have looked, or what global threats or diplomatic disasters would have been a reality if the institution did not exist. We take the UN for granted now, but would have had to re-invent it to protect ourselves from the consequences of unilateral hegemony if we found ourselves in a world without the UN or an equivalent.
- One could claim that the very reason why the UN and multilateral institutions are being criticised is exactly because they contribute to the destabilisation of a stagnant world order in which a few powerful states bully other countries. Indeed, the strongest opponents to the UN today are powerful heads of state and private entities who feel they are held back by the slow multilateral apparatus and have less to gain from it than what they can achieve unilaterally or bilaterally. The truth is that the UN has helped give a voice to many smaller states by making sure they are at the negotiating tables and have an opportunity to act internationally and exercise influence that by far exceeds what their size otherwise would have allowed. The broad multilateral diplomacy of institutions like the UN does not only give a more inclusive platform for smaller states, but it also offers a better chance to deal with complex challenges as the joint efforts mean a better ability to legitimise the achieved results, thus making them more sustainable.
- o But the UN's multilateral diplomacy also has **difficulties and limitations**. Other than being more costly and time consuming than bilateral agreements or unilateral action, multilateral negotiations often broaden the agenda to take into account the many different objectives and interests of the parties involved. This may result in the outcomes of multilateral agreements being less specific and concrete because they are characterised by compromise and finding the lowest common denominators across a variety of stakeholders, which in turn requires trade-offs. As such, there is an inversely proportional relationship between legitimacy and effectiveness, where more legitimacy is achieved at the price of effectiveness and vice versa.
- o Furthermore, UN action ultimately **requires collective action**, bringing the need for trust and equal commitment between stakeholders, which is easier said than done. But perhaps the most important aspect of all is the fact that implementation of UN agreements depends on the parties involved without any functioning enforcement or sanction mechanisms in place to ensure action. Instead, the UN depends on observation, monitoring and review mechanisms to improve the chances of implementation where member states allow such support. The lack of enforceability is indeed a problem for the implementation of agreements, but also reflects the unwillingness of member states to politically support the development of such mechanisms. Another limitation is the progressive decrease of budgetary support to the UN system that is meant to serve the whole planet and all its inhabitants with total funding per year that is about half the budget of New York City, making the UN increasingly dependent on private businesses and philanthropies to continue its operations.
- To conclude, the UN can be described as the conscious and moral compass of the global community the goodwill that everyone wants to demonstrate and be associated to, but nobody wants to invest in. The work of the UN is embedded in the UN Charter, which is a set of values that, in principle, all member countries have signed off on and want to live by. As with all aspirational values, it has led to unrealistic expectations on the UN coupled with an insufficient budget and political constraint.
- o The UN is a creation of the global community to serve the global community, and so it ultimately mirrors the action and support of its own source of existence. On the question of its relevance, the simple answer is, yes, it is relevant because it represents the world we strive to create and maintain- a world that respects all equally and provides safety and positive development for all. Meanwhile, it is also necessary for the creators, nurturers and users of the UN − the 193 member states and their people − to decide what they want. The self-improving goal of the UN reflects commitments that the world wants to uphold but for which their engagement, support and continuous devotion is necessary. If all countries want a UN that is effective and



whose recommendations become reality, they are the ones who need to pledge and deliver on resolutions and commitments.

The ongoing COVID-19 crisis, with its fast spread across borders and devastating effects on health systems and economies in countries of all income levels, has illustrated the importance of global solidarity and intergovernmental cooperation. Meanwhile, countries' unilateral decision-making, closed borders and naval-gazing at the onset of the pandemic shed light on the fragility of global collaboration mechanisms and raised questions around governments' readiness to support each other in times of difficulty. As the world faces more complex global challenges, the UN is more needed now than ever before to help develop legitimate and realistic international solutions. The pandemic might be exactly the crisis needed to force global unity and confrontation of the long-needed structural change to the UN system, and the current multipolar order might be the right political environment to push that agenda. The UN is in need of reform and the institution has been struggling to achieve it for the past four decades, but the question is, are member states ready to allow it?

4 ATLANTIC CHARTER (1941)

- The Atlantic Charter was a joint declaration released by US President Franklin D. Roosevelt and British Prime Minister Winston Churchill on 14th August, 1941 (during World War II) following a meeting of the two heads of government in Newfoundland.
- The Atlantic Charter was subsequently incorporated by reference in the Declaration of the United Nations in 1942.
- o World War II was a conflict that involved virtually every part of the world during the years 1939–45.
- o The principal belligerents were:
- Axis powers: Germany, Italy, and Japan.
- Allies: France, Great Britain, the United States, the Soviet Union, and, to a lesser extent, China.
- o The Atlantic Charter provided a broad statement of US and British war aims such as:
- They desired no territorial changes without the free assent of the peoples concerned.
- They respected every people's right to choose its own form of government and wanted sovereign rights and self-government restored to those forcibly deprived of them.
- They would try to promote equal access for all states to trade and to raw materials.
- They hoped to promote worldwide collaboration so as to improve labour standards, economic progress, and social security.
- The destruction of "Nazi tyranny," (Germany) they would look for a peace under which all nations could live safely within their boundaries, without fear or want.
- Under such a peace the seas should be free.
- Pending a general security through renunciation of force, potential aggressors must be disarmed.

NEW ATLANTIC CHARTER 2021

- o Recently, the President of the United States and Prime Minister of the United Kingdom reaffirmed their commitment to work together to realise vision for a more peaceful and prosperous future.
- Revitalised Atlantic Charter, building on the commitments and aspirations set out eighty years ago, affirms
 ongoing commitment to sustaining enduring values and defending them against new and old challenges.
 They committed to working closely with all partners who share democratic values and to counter the efforts
 of those who seek to undermine our alliances and institutions.
- 1. First, resolve to defend the principles, values, and institutions of democracy and open societies, which drive our own national strength and our alliances. Must ensure that democracies starting with our own can deliver on solving the critical challenges of our time. Will champion transparency, uphold the rule of law, and support civil society and independent media. Will also confront injustice and inequality and defend the inherent dignity and human rights of all individuals.



- **2. Second**, intend to strengthen the institutions, laws, and norms that sustain international co-operation to adapt them to meet the new challenges of the 21st century, and guard against those that would undermine them. Will work through the rules-based international order to tackle global challenges together; embrace the promise and manage the peril of emerging technologies; promote economic advancement and the dignity of work; and enable open and fair trade between nations.
- **3. Third,** remain united behind the principles of sovereignty, territorial integrity, and the peaceful resolution of disputes. Oppose interference through disinformation or other malign influences, including in elections, and reaffirm commitment to debt transparency, sustainability and sound governance of debt relief. So too will defend key principles such as freedom of navigation and overflight and other internationally lawful uses of the seas.
- **4. Fourth**, resolve to harness and protect innovative edge in science and technology to support shared security and deliver jobs at home; to open new markets; to promote the development and deployment of new standards and technologies to support democratic values; to continue to invest in research into the biggest challenges facing the world; and to foster sustainable global development.
- 5. Fifth, affirm shared responsibility for maintaining our collective security and international stability and resilience against the full spectrum of modern threats, including cyber threats. Declared our nuclear deterrents to the defence of NATO and as long as there are nuclear weapons, NATO will remain a nuclear alliance. NATO Allies and partners will always be able to count on us, even as they continue to strengthen their own national forces. Pledge to promote the framework of responsible State behaviour in cyberspace, arms control, disarmament, and proliferation prevention measures to reduce the risks of international conflict. Remain committed to countering terrorists who threaten our citizens and interests.
- **6. Sixth**, commit to continue building an inclusive, fair, climate-friendly, sustainable, rules-based global economy for the 21st century. Will strengthen financial stability and transparency, fight corruption and illicit finance, and innovate and compete through high labour and environmental standards.
- 7. **Seventh,** the world has reached a critical point where it must act urgently and ambitiously to tackle the climate crisis, protect biodiversity, and sustain nature. Our countries will prioritise these issues in all our international action.
- **8. Eighth**, recognise the catastrophic impact of health crises, and the global good in strengthening our collective defences against health threats. Commit to continuing to collaborate to strengthen health systems and advance our health protections, and to assist others to do the same.

4 US-RUSSIA SUMMIT TALKS

- o The Geneva summit between U.S. president Joe Biden and Russia's president Vladimir Putin was an important first step in potentially restoring normalcy to the U.S.-Russia bilateral relationship. Russia still shares nuclear parity with the United States, and Moscow can challenge American geopolitical and security interests across several issues and regions.
- o The fact that the Biden administration made no attempt to reset the U.S. relationship with Russia contributed to establishing realistic expectations for the meeting and beyond. Even at the height of the Cold War, the two countries maintained diplomatic consultations and cooperated on strategic arms control.
- Despite significant clashes of values and interests, both leaders seem to recognize the need to collaborate in areas of mutual concern, particularly in nuclear arms control and cybersecurity. Both sides have complained that the current period is more dangerous than the Soviet era in some ways because boundaries are no longer clearly defined. The two nations and the world benefit from a "predictable and stable" U.S.-Russia bilateral relationship, and limiting risk to avoid miscalculation that could lead to unintended consequences should be a highest priority.
- o It appears from all accounts that the two leaders were able to hold the meeting in a constructive and even cordial manner. Both presidents successfully deflected questions from the media aimed at amplifying discord. There were a few important deliverables for this first meeting, including **resuming diplomatic exchanges** with the return of ambassadors, clarifying potential "red lines" that should not be crossed without anticipating retaliation, initiating plans to work on arms control and cybersecurity, and possible prisoner exchanges. Rebuilding some confidence and a working level of trust will require that both sides



- commit to achieving progress in these critical areas and not allow a host of possible bilateral tensions and clashes to derail dialogue and collaboration.
- Looming large over the U.S.-Russia summit were President Biden's meetings at the G-7, NATO, and the EU aimed at restoring U.S. engagement in the transatlantic community as a priority and building support among allies for countering China.
- China has exploited the COVID-19 crisis, rapidly supplying global vaccine support at least in part to promote a message that authoritarian nations are more capable than democracies in meeting the needs of citizens of the world community. The image of the Chinese Communist Party has been damaged for lack of transparency and accountability in the pandemic crisis, perhaps catalyzing greater willingness among European nations to consider forging a coordinated China strategy. Referencing China in the NATO communiqué citing concerns about "stated ambitions and assertive behavior," "frequent lack of transparency and use of disinformation," and "cooperating militarily with Russia, including through participation in Russian exercises in the Euro-Atlantic area," represented a start toward building greater consensus among democratic allies recognizing potential security threats emanating from China.
- Reducing tension in the highly strained U.S.-Russia relationship can be important in managing the more serious challenges posed by China. Although Russia and China have not yet formed a military alliance, the Sino-Russian strategic partnership has advanced so far since the annexation of Crimea in 2014 that the United States will not be able to drive a wedge between the two countries. The conflictual relationship that existed in the Soviet era cannot be compared with the close Sino-Russian partnership today or the "cherished" relationship as described by Putin prior to the Geneva summit. At the same time, Russia remains a European power with cultural and longstanding ties to Europe. Moscow would benefit from restoring balance in relationships with China and the United States and Europe.
- o The United States could have responded more wisely to the opening created by the end of the Cold War during the 1990s. Now the challenge is to avoid further deterioration in the relationship with Russia as we face two major authoritarian powers rejecting the rules and norms of the Western liberal order, which have served as the foundation for governing the global system since World War II.
- Most important, Washington should carefully weigh whether any action could result in driving China and Russia closer together.
- There is no question that great power competition is a central feature of the contemporary and emerging global security environment. Defining success or a desired end-state surely requires more thought and consideration. Would the end-state be regime change in China or Russia? Would "winning" culminate in confrontation, as some have suggested, or can we coexist with different values and systems of government and avoid major power war?
- We should anticipate that China and Russia might attempt to draw the United States into simultaneous regional clashes (in Ukraine, Taiwan, or other areas) or multidomain gray-zone conflict consuming and diverting resources. At the same time, it seems that all three nations might understand that a major power kinetic war would have catastrophic consequences. The security of the international community will to a large extent depend on the ability of the United States and its democratic allies in Europe, Asia, and throughout the world to constructively engage Russia and China in managing a complex security environment of rapidly accelerating technological change and existential security challenges (nuclear and cybersecurity, climate change, pandemics, terrorism, and more).

KALAPANI REGION

The Kalapani dispute between Nepal and India was aroused when India published a revised political map in 2019 that shows the newly created Union Territories of Jammu & Kashmir and Ladakh. Both the countries laid claim to Kalapani. The map showed Kalapani as part of Pithoragarh. As a result, Nepal protested immediately and drew attention to the issue.

Location of Kalapani

o Kalapani is located in the easternmost corner of Uttarakhand's Pithoragarh district. It shared a border on the north with the Tibet Autonomous Region of China and Nepal in the east and south. The region is placed



in between **Limpiyadhura**, **Lipulekh**, and **Kalapani trijunction between Nepal-India and China (Tibet)**. At an altitude of 3600m, it is located on the banks of the river Kali. The territories of Kalapani lies at the eastern border of Uttarakhand in India and Nepal's Sudurpashchim Pradesh in the West.

 $\circ~$ It is under the control of India but Nepal claims the region due to historical and cartographic reasons.

What is the reason behind the dispute?

- Kalapani region derives its name from the Kali river. Nepal claims the region as the river became the marker of the boundary of the kingdom Nepal following the **Treaty of Sugauli**. The treaty of Sugauli was signed between the Gurkha rulers of Kathmandu and the East India Company after the Gurkha War/Anglo-Nepal War during 1814-16. In 1816, the treaty was ratified.
- As per the treaty, the regions of Kumaon-Garhwal in the west and Sikkim in the east were lost by Nepal.
- As per Article 5, the King of Nepal gave up
 his claims over the region west of the river Kali which originated in the High Himalayas and flows into the
 great plains of the Indian subcontinent.
- o Also according to the treaty, the rulers of the British recognised the right of Nepal's to the region that fell to the east of the Kali river.



- As per the experts of Nepal, the east of the Kali river should begin at the source of the river. And the source
 according to them is the mountains near Limpiyadhura. It is higher in altitude than the rest of the river's
 flow.
- o And Nepal claims that the landmass that is in the high mountains falls to the east of the entire stretch starting from Limpiyadhura downwards in theirs.
- According to India, the border starts at Kalapani and India says that is where the river begins. As per the Indian government, the ridgeline located towards the east of Kalapani territory is a part of the Indian Union. The Sugauli treaty mentions nothing about this ridgeline.
- o The main reason behind the dispute is the varying interpretation of the origin of the river and its different tributaries that slice via mountains.
- o Nepal claims the territory east of the Kali that is based on the Limpiyadhura origin and India says that the river actually takes the name Kali near Kalapani.
- o The Kalapani area is controlled by the Indo-Tibetan Police and nearby areas since the Indo-China war of 1962.

Claims of Nepal for Lipulekh pass

- o In the 1952 war, the importance of Himalayan passes with the Tibetan plateau was highlighted. During the war, the forces of the Chinese used the pass **Se La in Twang** and reached the plains of the Brahmaputra in the east. The military defeat in the east said that weakly guarded passes were a major vulnerability of Indian military preparedness against China. Lipulekh was vulnerable in comparison to Se La that was somewhat fortified. Further, according to the Nepali analysts, the King of Nepal Mahendra signed an agreement with Delhi and handed the region for security purposes to India. Under bilateral negotiations in 1969, all the posts were removed barring Kalapani.
- According to the former Indian Ambassador to Nepal Jayant Prasad, "the region was always a part of India
 and India's claims to the areas based on British Indian maps dating back to the 19th century." He further
 told that when the pilgrimage to Kailash Mansarovar paused with the takeover of Tibet by Chinese forces





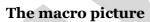
within the mid-1950s, India deployed troops at the Lipulekh pass in 1959, who was a part of the Eminent Persons Group established in February 2016 to make sure frank conversation between India and Nepal on controversial issues.

Importance of Lipulekh pass

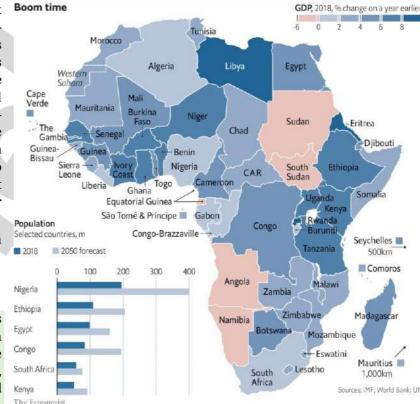
- o The region is in the Himalayas and is connected to the other side of the mountain range via Lipulek Pass which has been used for centuries by Hindu and Buddhist pilgrims and tourists to Kailash Mansarovar. By various mountain communities, the region of the market has been used. As we know that the Himalayas have various passes that connect the Gangetic region with the Tibetan plateau but the Lipulekh pass is strategically located as it is the nearest to the heart of the Indian state or National Capital Region.
- India and China Lipulekh agreement of 2015 renewed India's Mansarovar pilgrimage connection. Further, India and China were in clear violation of the Nepalese concerns during the 2015 agreement. Also, neither of the countries consulted Nepal or took its opinion before that agreement that enhances the pilgrimage and trade to Tibet.
- o **The current position**: A revised official map is published by Nepal incorporating the territory from the Limpiyadhura source of the Kali to Kalapani and Lipulekh pass in the northeast of the triangular region as its territory. The Cabinet led by Prime Minister K.P. Sharma Oli registered a constitution amendment motion to grant constitutional status to the map. As per India, this move will not make any solution for the future on the Kalapani issue and is nearly impossible as a constitutional guarantee will make Kathmandu's position inflexible.

4 INDIA'S AFRICA POLICY

- o Africa is considered a foreign policy priority by India. The current government designed a forward-looking strategy to deepen relations with African countries. Its implementation was managed quite well, with much political will invested in expanding the multifaceted engagement. Even as the COVID-19 era began in March 2020, India took new initiatives to assist Africa through prompt despatch of medicines and later vaccines.
- But now the policy implementation needs a critical review.



 The latest economic data confirms that India-Africa trade is on a decline. According to the Confederation of Indian Industry, in 2020-21, India's exports to and imports from Africa stood,



respectively, at \$27.7 billion and \$28.2 billion, a reduction of 4.4% and 25% over the previous year. Thus, bilateral trade valued at \$55.9 billion in 2020-21, fell by \$10.8 billion compared to 2019-20, and \$15.5 billion compared to the peak year of 2014-15.



- o India's **investments in Africa too saw a decrease** from \$3.2 billion in 2019-20 to \$2.9 billion in 2020-21. Total investments over 25 years, from April 1996 to March 2021, are now just \$70.7 billion, which is about one-third of China's investment in Africa. COVID-19 has caused an adverse impact on the Indian and African economies.
- o India's **top five markets today are South Africa**, **Nigeria**, **Egypt**, **Kenya and Togo**. The countries from which India **imports the most are South Africa**, **Nigeria**, **Egypt**, **Angola and Guinea**.
- o India's top three exports to Africa are mineral fuels and oils (processed petroleum products), pharmaceutical products and vehicles.
- Mineral fuels and oils, (essentially crude oil) and pearls, precious or semi-precious stones are
 the top two imports accounting for over 77% of our imports from Africa. The composition of the India-Africa
 trade has not changed much over the two decades.

Global competition: Latest trends in bilateral economic relations should be assessed against two broad developments.

- First, COVID-19 has brought misery to Africa. As on June 24, 2021, Africa registered 5.2 million infections and 1,37,855 deaths. Given Africa's population (1.3 billion) and what happened elsewhere (the United States, Europe and India), these figures may not have drawn international attention, but Africans have been deeply affected and remain ill-equipped.
- o A recent World Health Organization survey revealed that 41 African countries had fewer than 2,000 working ventilators among them. Despite these shortcomings, Africa has not done so badly. Experts suggest that the strength of community networks and the continuing relevance of extended family play an important supportive role. Besides, Africa has some of the protocols in place, having recently suffered from Ebola, and managed it reasonably well. Sadly though, with much of the world caught up in coping with the novel coronavirus pandemic's ill effects, flows of assistance and investment to Africa have decreased.
- Second, as a recent Gateway House study, Engagement of External Powers in Africa; Takeaways for India, showed, Africa experienced a sharpened international competition, known as 'the third scramble', in the first two decades of the 21st century. A dozen nations from the Americas, Europe and Asia have striven to assist Africa in resolving the continent's political and social challenges and, in turn, to benefit from Africa's markets, minerals, hydrocarbons and oceanic resources, and thereby to expand their geopolitical influence.
- A mix of competition and contestation involving traditional and new players, especially the United States, the European Union (EU), China, Japan and India, has attracted much attention from governments, media and academia.
- While China has successfully used the pandemic to expand its footprint by increasing the outflow of its vaccines, unfortunately India's 'vax diplomacy' has suffered a setback. This came in the wake of the debilitating second wave of COVID-19 in the country and the shortage of vaccine raw materials from the U.S. Geopolitical tensions in Asia and the imperative to consolidate its position in the Indo-Pacific region have compelled New Delhi to concentrate on its ties with the United Kingdom, the EU, and the Quad powers, particularly the U.S. Consequently, the attention normally paid to Africa lost out.

India's role

- This must now change. For mutual benefit, Africa and India should remain optimally engaged. It was perhaps this motivation that shaped the substantive intervention made by External Affairs Minister S. Jaishankar in the UN Security Council's open debate on conflict and post-pandemic recovery in Africa. Touching on politico-diplomatic dimensions, he regretted that "the voice of Africa is not given its proper due" in the Security Council. He highlighted India's role in peacekeeping in Africa, in lending support to African counter-terrorism operations, and contributing to African institutions through training and capacity-enhancing assistance. India's aid for economic development in the African continent is set to continue, he assured. His visit to Kenya has helped to re-establish communication with Africa at a political level.
- It is time to seize the opportunity and restore Africa to its primary position in India's diplomacy and economic engagement. The third India-Africa Forum Summit was held in 2015. The fourth summit,



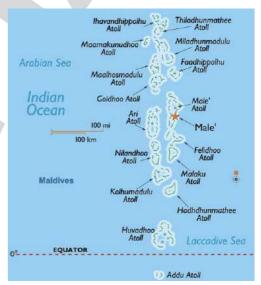
pending since last year, should be held as soon as possible, even if in a virtual format. Fresh financial resources for grants and concessional loans to Africa must be allocated, as previous allocations stand almost fully exhausted. Without new commitments, India's Africa policy would be like a car running on a near-empty fuel tank.

Areas with promise

- The promotion of economic relations demands a higher priority. Industry representatives should be consulted about their grievances and challenges in the COVID-19 era. It is essential "to impart a 21st century complexion to the partnership with Africa", as the above-mentioned study argues. This means developing and deepening collaborations in health, space and digital technologies.
- Finally, to overcome the China challenge in Africa, increased cooperation between India and its international allies, rates priority. The recent India-EU Summit has identified Africa as a region where a partnership-based approach will be followed. Similarly, when the first in-person summit of the Quad powers is held in Washington, a robust partnership plan for Africa should be announced. For it to be ready in time, work by Quad planners needs to begin now.

ADDU ATOLL

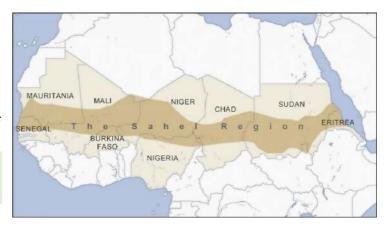
- The Maldives has made no decision on opening an Indian consulate in its southern Addu Atoll.
- o Addu Atoll, also known as **Seenu Atoll**, is the southernmost atoll of the Maldives. Addu Atoll, together with Fuvahmulah, located 40 km north of Addu Atoll, extend the Maldives into the Southern Hemisphere. Addu Atoll is located 540 km south of Malé, the country's capital. Administratively, Addu Atoll is the location of Addu City, one of the three cities of the Maldives.
- o Apart from its strategic location in the Indian Ocean, Addu is the second largest city in the Indian Ocean archipelago, home to over 30,000 people. Indian government sources familiar with the proposal said the rationale for the consulate was to help Addu residents with speedy visa services. Currently, those applying for an Indian visa have to travel to capital Male some 550 km and a 1.5-hour flight away to the Embassy's consular section. India remains one of the most popular destinations for



Maldivian travellers, especially those pursuing higher education or seeking medical attention. Even after the pandemic struck, at least 8,000 visas were issued to Maldivians on medical and educational grounds, according to official sources.

SAHEL

- The massacre of people in a border village in **Burkina Faso** recently is a grim reminder of the threat the Sahel region faces from terrorism.
- Burkinabe authorities have named the Islamic State in the Greater Sahara (ISGS), which has carried out hundreds of terror strikes in recent years.
- Four main terror outfits operate in the region — the ISGS, the Islamic State West Africa Province (ISWAP), the





Jama'at Nasr al-Islam wal Muslimin, the local al-Qaeda branch in Mali, and Boko Haram.

- o When the IS-militant infrastructure was destroyed in Iraq and Syria, their foot soldiers fled to Africa, regrouping themselves in the region.
- Sahel, Arabic Sāḥil, is semiarid region of western and north-central Africa extending from Senegal eastward to Sudan. It forms a transitional zone between the arid Sahara (desert) to the north and the belt of humid savannas to the south.
- The Sahel stretches from the Atlantic Ocean eastward through northern Senegal, southern Mauritania, the great bend of the Niger River in Mali, Burkina Faso (formerly Upper Volta), southern Niger, northeastern Nigeria, south-central Chad, and into Sudan.

TAIWAN

- Taiwan, Portuguese Formosa, is an island in the western Pacific Ocean that lies roughly 100 miles (160 km) off the coast of southeastern China.
- It is approximately 245 miles (395 km) long (north-south) and 90 miles (145 km) across at its widest point. Taipei, in the north, is the seat of government of the Republic of China (ROC; Nationalist China).
- o In addition to the main island, the ROC government has jurisdiction over 22 islands in the Taiwan group and 64
- San-chiung Chi-lung Lac your Pairei Pan-chiaa Chu-ting Chi-lung Ch

islands to the west in the P'eng-hu (Pescadores) archipelago.

- o Two island groups controlled by the ROC government, Matsu and Quemoy, lie just off the coast of China's Fujian (Fukien) province.
- In the East China Sea, the ROC claims the group of islands it calls **Diaoyutai**, which also are claimed by Japan as **Senkaku** and by the People's Republic of China as **Diaoyu**.
- Moreover, in the South China Sea, the ROC's claim to the Paracels is disputed with the People's Republic of China and Vietnam, whereas a larger group of countries—the People's Republic of China, Vietnam, Malaysia, and the Philippines, in addition to the ROC—all claim the Spratly Islands.
- o Prior to the 1600s, Taiwan was self-governing, although there was no central ruling authority.
- o It was a **colony of the Netherlands for about 40 years** in the early to mid-17th century and was subsequently independent again for about two decades.
- China gained control there in the late 17th century and ruled Taiwan for some two centuries.
- o **Japan acquired Taiwan in 1895** following the first Sino-Japanese War, and it became a colony.
- Taiwan was returned to Nationalist Chinese control in 1945 following Japan's defeat in World War II.
- However, in 1949 Chinese communist armies defeated Nationalist forces on the mainland and established the People's Republic of China there.
- The Nationalist government and armies fled to Taiwan, again resulting in the separation of Taiwan from China.
- o In the ensuing years the ROC claimed jurisdiction over the Chinese mainland as well as Taiwan, although in the early 1990s Taiwan's government dropped this claim to China.
- o The Chinese government in Beijing has maintained that it has jurisdiction over Taiwan and has continued to propound a one-China policy—a position that few countries in the world dispute.



4 BLACK SEA

- o Black Sea is large inland sea situated at the southeastern extremity of Europe.
- It is **bordered b**y Ukraine to the north, Russia to the northeast, Georgia to the east, Turkey to the south, and Bulgaria and Romania to the west.
- The roughly oval-shaped Black Sea occupies a large basin strategically situated at the southeastern extremity of Europe but connected to the distant waters of the Atlantic Ocean by the Bosporus (which emerges from the sea's southwestern corner), the Sea of Marmara, the Dardanelles, the Aegean Sea, and the Mediterranean Sea.



- The Crimean Peninsula thrusts into the Black Sea from the north, and just to its east the narrow Kerch
 Strait links the sea to the smaller Sea of Azov. The Black Sea coastline is otherwise fairly regular.
- o The maximum east-west extent of the sea is about 730 miles (1,175 km), and the shortest distance between the tip of Crimea and Cape Kerempe to the south is about 160 miles (260 km). The surface area, excluding the Sea of Marmara but including the Sea of Azov, is about 178,000 square miles (461,000 square km); the Black Sea proper occupies about 163,000 square miles (422,000 square km). A maximum depth of more than 7,250 feet (2,210 metres) is reached in the south-central sector of the sea.

BHASAN CHAR

- Bhasan Char (also known as Char Piya, is an island in Bangladesh.
- Until 2019 it was known as **Thengar Char**. It is located in the Bay of Bengal, about 6 kilometres (3.7 mi) from Sandwip island and 37 miles (60 km) from the mainland.
- The island was formed by Himalayan silt in 2006. It spans 40 square kilometres (15 sq mi; 4,000 ha).
- The Government of Bangladesh planned to construct a total of 1,440 buildings, including 120 cyclone shelters, to relocate 100,000 Rohingya refugees from the mainland camps of Cox's Bazar.



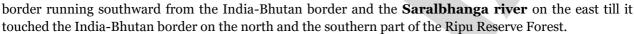


GEOGRAPHY AND ENVIRONMENT

(Ecology; Biodiversity and Disaster Management)

RAIMONA NATIONAL PARK

- Raimona in Kokrajhar district has become Assam's sixth national park.
- The five national parks that existed prior to the 422 sq. km Raimona are Kaziranga, Manas, Nameri, Orang and Dibru-Saikhowa.
- The Raimona National Park is within the Bodoland Territorial Region. The area of the park includes the northern part of the notified Ripu Reserve Forest (508.62 sq. km), which forms the western-most buffer to the Manas National Park that straddles the India-Bhutan border.
- Raimona was bounded on the west by the
 Sonkosh river along the Assam-West Bengal



- o The Pekua river defines Raimona's southern boundary.
- Raimona also shares contiguous forest patches of the Phipsoo Wildlife Sanctuary and the Jigme Singye Wangchuk National Park in Bhutan (total area of 1,999 sq. km) creating a transboundary conservation landscape of more than 2,400 sq. km.
- Raimona is an integral part of the 2,837 sq. km Manas Biosphere Reserve and the Chirang-Ripu Elephant Reserve.

DIHING PATKAI NATIONAL PARK

- Dihing Patkai has been created as the seventh National Park in Assam.
- o It was declared a wildlife sanctuary in 2004.
- The 234.26-sq. km Dihing Patkai straddling eastern Assam's **Dibrugarh and Tinsukia districts** is a major **elephant habitat** and 310 species of butterflies have been recorded there.
- The Dehing Patkai Wildlife Sanctuary was declared as Dehing-Patkai Elephant Reserve under Project Elephant.
- The park has 47 species each of reptiles and mammals, including the tiger and clouded leopard.
- Dihing Patkai, in focus a year ago for illegal coal mining in the vicinity, encompasses the erstwhile Dehing Patkai Wildlife Sanctuary, the Jeypore Reserve Forest and the western block of the Upper Dihing Reserve Forest.



- Short stretches of the **Dirak and Buri Dihing rivers** have been included in the park.
- The newly-notified national park will be administered by the Soraipung Range of Digboi Forest Division and Jeypore Range of Dibrugarh Forest Division. Additional anti-poaching camps and manpower are being provided for intensive patrolling and conservation of the new park.



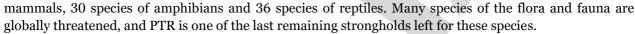


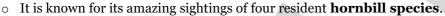
PAKKE TIGER RESERVE

More than 200 contingency workers of the Pakke Tiger Reserve in Arunachal Pradesh went on an indefinite

strike over non-payment of wages since December 2020.

- The 862 km2 (333 sq mi) reserve is protected by the Department of Environment and Forest of Arunachal Pradesh.
- Pakke Tiger Reserve (declared in 1999 -2000) lies in the foothills of the eastern Himalaya in Arunachal Pradesh's Pakke Kessang District.
- It is also known as Pakhui Tiger Reserve.
- It falls within the Eastern Himalaya Biodiversity Hotspot.
- It is home to over 2000 species of plants,
 300 species of birds, 40 species of mammals, 30 species of amphibians and





- This Tiger Reserve has won India Biodiversity Award 2016 in the category of 'Conservation of threatened species' for its Hornbill Nest Adoption Programme.
- Towards the south and south-east, the sanctuary adjoins reserve forests and Assam's Nameri National Park. To the west, it is bounded by Doimara Reserve Forest with an area of 216 km2 (83 sq mi) and Eaglenest Wildlife Sanctuary; and to the north by Shergaon Forest Division.
- o The main perennial streams in the area are the Nameri, Khari and Upper Dikorai.



Captive-bred pygmy hogs, the world's rarest and smallest wild pigs, were released in the Manas National Park of western Assam. This is the second batch to have been reintroduced into the wild under the **Pygmy Hog Conservation Programme (PHCP)** in a year.

The PHCP is a collaboration among **Durrell Wildlife Conservation Trust of UK, Assam Forest Department, Wild Pig Specialist Group of International Union for Conservation of Nature** and **Union Environment Ministry** and is currently being implemented by **NGOs Aaranyak and EcoSystems India.**

- Manas, at the base of **foot hills of the Bhutan-Himalayas** in the state of Assam, with unique biodiversity
 and landscape is one of the first reserves included in the network of tiger reserve under Project tiger in 1973.
- In 1985, the Manas Wildlife Sanctuary was inscribed as World Heritage Site.
- o In 1989, Manas acquired the status of a Biosphere reserve.
- o It extends over an area of 2837 Sq. Km from **Sankosh river in the west to Dhansiri river** in the east, with a core area of 500 Sq. Km. of the National park, which declared in 1990. The average elevation of the area is 85 m above mean sea level. The river Manas flows into the national Park from the gorges of Bhutan and split into two major streams of which the main water course comes out of the National Park about 30 km downstream is known as 'Beki".
- o About the half of the Park is covered by Grasslands of Terai and Bhabar type, the riparian areas have colonizing grasslands and woodlands of several species. The thick woodlands are called Eastern Moist Deciduous Forests of various types. The undergrowths are very thick. There are more than 650 species of Angiosperms alone. The commonly seen trees are the Simul, Oxi, Sissoo, Khaie, Gamari, etc.
- Manas is the only landscape in the world where pristine Terai Grasslands are seen merging with the Bhabar grasslands interspersed with diverse habitats ascending to Semi-Evergreen forests and





then to Bhutan Himalayas. The Biodiversity is very rich here. The last population of the Pygmy Hog survive in the wilds of Manas and nowhere else in the world.

MONSOON IN INDIA

- Indian monsoon is the most prominent of the world's monsoon systems, which primarily affects India and its surrounding water bodies.
- It blows from the northeast during cooler months and reverses direction to blow from the southwest during the warmest months of the year. This process brings large amounts of rainfall to the region during June and July.
- At the Equator the area near India is unique in that dominant or frequent westerly winds occur at the surface almost constantly throughout the year; the surface easterlies reach only to latitudes near 20° N in February, and even then they have a very strong northerly component. They soon retreat northward, and drastic changes take place in the upper-air circulation (see climate: Jet streams). This is a time of transition between the end of one monsoon and the beginning of the next.
- Late in March the high-sun season reaches the Equator and moves farther north. With it go atmospheric
 instability, convectional (that is, rising and turbulent) clouds, and rain. The westerly subtropical jet stream
 still controls the flow of air across northern India, and the surface winds are northeasterlies.

Monsoon onset and early developments

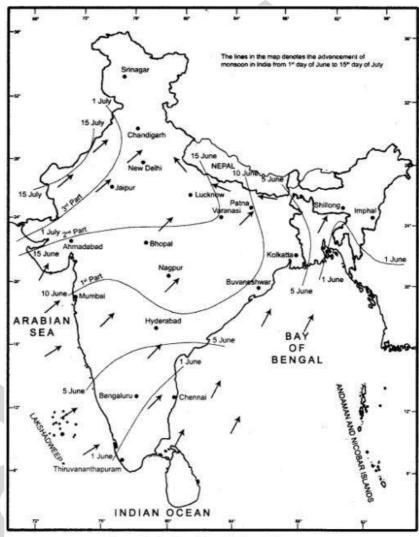
- o As the high-sun season (that is, the Northern Hemisphere summer) moves northward during April, India becomes particularly prone to rapid heating because the highlands to the north protect it from any incursions of cold air. There are three distinct areas of relative upper tropospheric warmth—namely, (1) above the southern Bay of Bengal, (2) above the Plateau of Tibet, and (3) across the trunks of the various peninsulas that are relatively dry during this time. These three areas combine to form a vast heat-source region.
- The relatively warm area above the southern Bay of Bengal occurs mostly at the 500–100-millibar level. (This atmospheric pressure region typically occurs at elevations between 5,500 and 16,100 metres [18,000 and 53,000 feet] but may vary according to changes in heating and cooling.) It does not appear at a lower level and is probably caused by the release of condensation heat (associated with the change from water vapour to liquid water) at the top of towering cumulonimbus clouds along the advancing intertropical convergence. In contrast, a heat sink appears over the southern Indian Ocean as the relatively cloud-free air cools by emitting long-wavelength radiation. Monsoon winds at the surface blow from heat sink to heat source. As a result, by May the southwest monsoon is well-established over Sri Lanka, an island off the southeastern tip of the Indian peninsula.
- Also in May, the **dry surface of Tibet** (above 4,000 metres [13,100 feet]) absorbs and radiates heat that is readily transmitted to the air immediately above. At about 6,000 metres (19,700 feet) an anticyclonic cell arises, causing a strong easterly flow in the upper troposphere above northern India. The subtropical jet stream suddenly changes its course to the north of the anticyclonic ridge and the highlands, though it may occasionally reappear southward of them for very brief periods. This change of the upper tropospheric circulation above northern India from westerly jet to easterly flow coincides with a reversal of the vertical temperature and pressure gradients between 600 and 300 millibars. On many occasions the easterly wind aloft assumes jet force. It anticipates by a few days the "burst," or onset, of the surface southwesterly monsoon some 1,500 km (900 miles) farther south, with a definite sequential relationship, although the exact cause is not known.
- Because of India's inverted triangular shape, the land is heated progressively as the sun moves northward. This accelerated spread of heating, combined with the general direction of heat being transported by winds, results in a greater initial monsoonal activity over the Arabian Sea (at late springtime), where a real frontal situation often occurs, than over the Bay of Bengal. The relative humidity of coastal districts in the Indian region rises above 70 percent, and some rain occurs. Above the heated land, the air below 1,500 metres



(5,000 feet) becomes unstable, but it is held down by the overriding easterly flow. This does not prevent frequent thunderstorms from occurring in late May.

Peak period

- o During June the easterly jet becomes firmly established at 150 to 100 millibars, an atmospheric pressure region typically occurring at elevations between 13,700 and 16,100 metres (45,000 and 53,000 feet). It reaches its greatest speed at its normal position to the south of the anticyclonic ridge, at about 15° N from China through India.
- In Arabia, it decelerates and descends to the middle troposphere (3,000 metres [9,800 feet]). A stratospheric belt of very cold air, analogous to the one normally found above the intertropical convergence near the Equator, occurs above anticyclonic ridge, across southern Asia at 30°-40° N and above the 500-millibar level (6,000 metres [19,700 feet]). These upper-air features that arise so far away from the Equator are the associated with surface monsoon and are absent when there is no monsoonal flow. The position of the easterly jet controls the location of monsoonal rains, which occur ahead and to the left of the strongest winds and also behind them and to the right.



Map 12: India - South West Monsoon

- The **surface flow**, however, is a strong, southwesterly, humid, and unstable wind that brings humidity of more than 80 percent and heavy squally showers that are the "burst" of the monsoon. The overall pattern of the advance follows a frontal alignment, but local episodes may differ considerably. The amount of rain is variable from year to year and place to place.
- Most spectacular clouds and rain occur against the Western Ghats in India, where the early monsoonal airstream piles up against the steep slopes, then recedes, and piles up again to a greater height. Each time it pushes thicker clouds upward until wind and clouds roll over the barrier and, after a few brief spells of absorption by the dry inland air, cascade toward the interior. The windward slopes receive 2,000 to 5,000 mm (80 to 200 inches) of rain in the monsoon season.
- Various factors, especially topography, combine to make up a complex regional pattern. Oceanic air flowing toward India below 6,000 metres (19,700 feet) is deflected in accordance with the **Coriolis effect.** The converging moist oncoming stream becomes unstable over the hot land and is subject to rapid convection. Towering cumulonimbus clouds rise thousands of metres, producing violent thunderstorms and releasing latent heat in the surrounding air. As a result, the upper tropospheric warm belt migrates northwestward from the ocean to the land. The main body of air above 9,000 metres (29,500 feet) maintains a strong easterly flow.



- Later, in June and July, the monsoon is strong and well-established to a height of 6,000 metres (less in the far north), with occasional thickening to 9,000 metres. Weather conditions are cloudy, warm, and moist all over India. Rainfall varies between 400 and 500 mm (16 and 20 inches), but topography introduces some extraordinary differences. On the southern slopes of the Khasi Hills at only 1,300 metres (4,300 feet), where the moist airstreams are lifted and overturned, the village of Cherrapunji in Meghalaya state receives an average rainfall of 2,730 mm (107 inches) in July, with record totals of 897 mm (35 inches) in 24 hours in July 1915, more than 9,000 mm (354 inches) in July 1861, and 16,305 mm (642 inches) in the monsoon season of 1899. Over the Ganges valley the monsoon, deflected by the Himalayan barrier, becomes a southeasterly airflow. By then the upper tropospheric belt of warmth from condensation has moved above northern India, with an oblique bias. The lowest pressures prevail at the surface.
- o It is mainly in July and August that waves of low pressure appear in the body of monsoonal air. Fully developed depressions appear once or twice per month. They travel from east to west more or less concurrently with high-level easterly waves and bursts of speed from the easterly jet, causing a local strengthening of the low-level monsoonal flow. The rainfall consequently increases and is much more evenly distributed than it was in June. Some of the deeper depressions become tropical cyclones before they reach the land, and these bring torrential rains and disastrous floods.
- o A totally different development arises when the easterly jet moves farther north than usual. The monsoonal wind rising over the southern slopes of the Himalayas brings heavy rains and local floods. The weather over the central and southern districts, however, becomes suddenly drier and remains so for as long as the abnormal shift lasts. The opposite shift is also possible, with midlatitude upper air flowing along the south face of the Himalayas and bringing drought to the northern districts. Such dry spells are known as "breaks" of the monsoon. Those affecting the south of India are similar to those experienced on the Guinea Coast during extreme northward shifts of the wind belts (see West African monsoon), whereas those affecting the north are due to an interaction of the middle and low latitudes. The southwest monsoon over the lower Indus plain is only 500 metres (about 1,600 feet) thick and does not hold enough moisture to bring rain. On the other hand, the upper tropospheric easterlies become stronger and constitute a true easterly jet stream. Western Pakistan, Iran, and Arabia remain dry (probably because of the divergence in this jet) and thus become the new source of surface heat.

Monsoon withdrawal

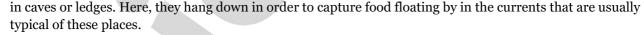
- O By August the intensity and duration of sunshine have decreased, temperatures begin to fall, and the surge of southwesterly air diminishes spasmodically almost to a standstill in the northwest. Cherrapunji still receives over 2,000 mm (79 inches) of rainfall at this time, however. In September, dry, cool, northerly air begins to circle the west side of the highlands and spread over northwestern India. The easterly jet weakens, and the upper tropospheric easterlies move much farther south. Because the moist southwesterlies at lower levels are much weaker and variable, they are soon pushed back. The rainfall becomes extremely variable over most of the region, but showers are still frequent in the southeastern areas and over the Bay of Bengal.
- O By early October, variable winds are very frequent everywhere. At the end of the month, the entire Indian region is covered by northerly air and the winter monsoon takes shape. The surface flow is deflected by the Coriolis force and becomes a northeasterly flow. This causes an October-December rainy season for the extreme southeast of the Deccan (including the Madras coast) and eastern Sri Lanka, which cannot be explained by topography alone because it extends well out over the sea. Tropical depressions and cyclones are important contributing factors.
- Most of India thus begins a sunny, dry, and dusty season. The driest period comes in November in the Punjab; December in central India, Bengal, and Assam; January in the northern Deccan; and February in the southern Deccan. Conversely, the western slopes of the Karakoram Range and Himalayas are then reached by the midlatitude frontal depressions that come from the Atlantic and the Mediterranean. The winter rains they receive, moderate as they are, place them clearly outside the monsoonal realm.
- Decause crops and water supplies depend entirely on monsoonal rains, it became imperative that quantitative long-range weather forecasts be available. Embedded in the weather patterns of other parts of the world are clues to the summer conditions in South Asia. These clues often appear in the months leading up to monsoon onset. For a forecast to be released at the beginning of June, South American pressure and Indian upper-wind data for the month of April are examined. These data, though widely separated from one

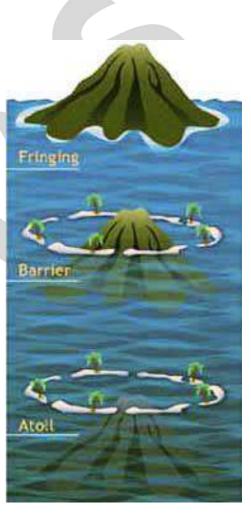


another, are positively correlated and may be used as predictors of June conditions. Forecasts may be further refined in May by comparing rainfall patterns in both Zimbabwe and Java with the easterly winds above the city of Kolkata (Calcutta) in West Bengal state. In this situation the correlation between rainfall and easterly winds is negative.

CORALS

- Corals are sessile, which means that they permanently attach themselves to the ocean floor, essentially "taking root" like most plants do. We certainly cannot recognize them by their faces or other distinct body parts, as we can most other animals.
- Corals are invertebrate animals belonging to a large group of colourful and fascinating animals called Cnidaria. Other animals in this group that you may have seen in rock pools or on the beach include jelly fish and sea anemones. Although Cnidarians exhibit a wide variety of colours, shapes and sizes, they all share the same distinguishing characteristics; a simple stomach with a single mouth opening surrounded by stinging tentacles.
- Each individual coral animal is called a polyp, and most live in groups of hundreds to thousands of genetically identical polyps that form a 'colony'. The colony is formed by a process called budding, which is where the original polyp literally grows copies of itself.
- o Coral are generally classified as either "hard coral" or "soft coral". There are around 800 known species of hard coral, also known as the 'reef building' corals. Soft corals, which include seas fans, sea feathers and sea whips, don't have the rock-like calcareous skeleton like the others, instead they grow wood-like cores for support and fleshy rinds for protection.
- Soft corals also live in colonies, that often resemble brightly coloured plants or trees, and are easy to tell apart from hard corals as their polyps have tentacles that occur in numerals of 8, and have a distinctive feathery appearance. Soft corals are found in oceans from the equator to the north and south poles, generally





What are coral reefs?

- O Hard corals extract abundant calcium from surrounding seawater and use this to create a hardened structure for protection and growth. Coral reefs are therefore created by millions of tiny polyps forming large carbonate structures, and are the basis of a framework and home for hundreds of thousands, if not millions, of other species. Coral reefs are the largest living structure on the planet, and the only living structure to be visible from space.
- Ocoral reefs have evolved on earth over the past 200 to 300 million years, and over this evolutionary history, perhaps the most unique feature of corals is the highly evolved form of **symbiosis**. Coral polyps have developed this relationship with **tiny single-celled plants**, **known as zooxanthellae**. Inside the tissues of each coral polyp live these microscopic, single-celled algae, sharing space, gas exchange and nutrients to survive.
- This symbiosis between plant and animal also contributes to the brilliant colors of coral that can be seen while diving on a reef. It is the importance of light that drives corals to compete for space on the sea floor, and so constantly pushes the limits of their physiological tolerances in a competitive environment among so many different species. However, it also makes corals highly susceptible to environmental stress.



- o Coral reefs are part of a larger ecosystem that also includes mangroves and seagrass beds. Mangroves are salt tolerant trees with submerged roots that provide nursery and breeding grounds for marine life, that then migrate to the reef. Mangroves also trap and produce nutrients for food, stabilise the shoreline, protect the coastal zone from storms, and help filter land based pollutants from run off. Seagrasses are flowering marine plants that are a key primary producer in the food web. They provide food and habitat for turtles, seahorses, manatees, fish and foraging sea life such as urchins and sea cucumbers, and are also a nursery for many juvenile species of sea animals. Seagrass beds are like fields that sit in shallow waters off the beach, filtering sediments out of the water, releasing oxygen and stabilising the bottom.
- Location-Coral reefs are found throughout the oceans, from deep, cold waters to shallow, tropical waters. Temperate and tropical reefs however are formed only in a zone extending at most from 30°N to 30°S of the equator; the reef-building corals prefering to grow at depths shallower than 30 m (100 ft), or where the temperature range is between 16-32oc, and light levels are high.

What does a coral reef look like?

It was Charles Darwin who originally classified coral reefs as to their structure and morphology, and described them as follows:

- o **Fringing reefs** lie near emergent land. They are fairly shallow, narrow and recently formed. They can be separated form the coast by a navigable channel (which is sometimes incorrectly termed a "lagoon").
- o **Barrier reefs** are broader and lie farther away from the coast. They are separated from the coast by a stretch of water which can be up to several miles wide and several tens of metres deep. Sandy islands covered with a characteristic pattern of vegetation have sometimes formed on top of a barrier reef. The coastline of these islands is broken by passes, which have occupied the beds of former rivers.
- Atolls are large, ring-shaped reefs lying off the coast, with a lagoon in their middle. The
 emergent part of the reef is often covered with accumulated sediments and the most characteristic vegetation
 growing on these reefs consists of coconut trees. Atolls develop near the sea surface on underwater islands
 or on islands that sink, or subside.

OPERATION OLIVIA

- Operation Olivia was started by the Indian Coast Guard (ICG), first in early 1980s. This operation helps in **protecting Olive Ridley turtles** every year when they start nesting along Odisha coast for breeding in months of November to December. Under it, round-the-clock surveillance is conducted from November till May through Coast Guard assets like Fast patrol vessels, Interceptor craft, Air cushion vessels and Dornier aircraft.
- These laws and operation are enforced by the Coast Guard which gets power under Orissa Marine Fisheries Act. Efforts are made at various levels such as:
- Thias: Shatir axxiv Zirthiri Paven
- Enforcement of use of Turtle Excluder Devices (TED) by trawlers in waters surrounding nesting areas.
- Prohibition of using gill nets as turtle approaches to the shore to curtail turtle poaching.

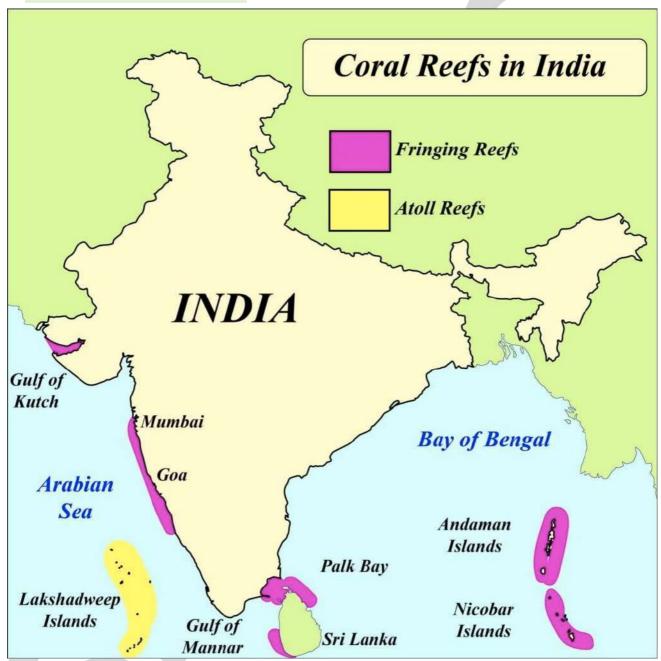
About Olive Ridley

- Olive Ridley turtles are listed as vulnerable under International Union for Conservation of Nature (IUCN) Red List.
- o Sea turtles found in India have been included in Schedule I of Indian Wildlife Protection Act, 1972.
- They are also listed in **Appendix I of Convention of International Trade in Endangered Species (CITES)** of Wild Fauna and Flora.
- o Their mass nesting is called as arribada.



 Gahirmatha, Astaranga coast, mouth of Devi river and Rushikulya are four arribadas sites off the Odisha Coast in India. Apart from that, Hope Island of Coringa Wildlife Sanctuary in Andhra Pradesh is also preferred for mass nesting.

4 CORAL MAP OF INDIA



4 PYROSTRIA LALLJI

- A 15-meter-tall tree that belongs to the genus of the coffee family has recently been discovered from the Andaman Islands.
- o The new species, Pyrostria laljii, is also the **first record of the genus Pyrostria** in India.
- o Plants belonging to genus Pyrostria are usually found in Madagascar but the recently discovered species is new to science.



- The tree is distinguished by a long stem with a whitish coating on the trunk, and oblong-obovate leaves with a cuneate base, and was first reported from **South Andaman's Wandoor forest**. The other places in the Andaman and Nicobar Islands where the tree could be located are the **Tirur forest near the Jarawa Rerserve Forest** and the Chidia Tapu (Munda Pahar) forest.
- Pyrostria laljii has been assessed as 'Critically Endangered' based on the International Union for Conservation of Nature's (IUCN) Red List criteria.
- While the genus Pyrostria is not found in India, there are several genera from the family Rubiaceae that are common in India. These plants, including cinchona, coffee, adina, hamelia, ixora, galium, gardenia, mussaenda, rubia, morinda, have high potential for economic value.

POKEWOOD SPECIES

- o A new species of pokeweed named Rivina andamanensis was discovered recently A&N Islands.
- Pokeweed is a species of open or edge habitats, especially those where birds are able to roost. It is found at forest edge
- It was found growing under large trees, shaded and rocky areas, along with herbs and shrubby plants. This
 discovery of new species, representing the first record of the pokeweed family Petiveriaceae in the Andaman
 and Nicobar Islands, adds one more family to the islands' flora.
- The A&N Islands is a group of 572 islands and islets that are rich and unique in terms of plant diversity in India. The total number of listed flora on the islands is approximately 3,410 plant species under 1,281 genera and 303 families belonging to Angiosperms, Gymnosperms, Pteridophytes, Bryophytes, and Lichens.

CLIMATE FINANCE

- Climate finance refers to local, national or transnational financing—drawn from public, private and alternative sources of financing—that seeks to support mitigation and adaptation actions that will address climate change.
- The Convention, the Kyoto Protocol and the Paris Agreement call for financial assistance from Parties
 with more financial resources to those that are less endowed and more vulnerable. This recognizes that the
 contribution of countries to climate change and their capacity to prevent it and cope with its consequences
 vary enormously.
- o Climate finance is **needed for mitigation**, **because large-scale investments** are required to significantly reduce emissions. Climate finance is equally important for adaptation, as significant financial resources are needed to adapt to the adverse effects and reduce the impacts of a changing climate.
- o In accordance with the principle of "common but differentiated responsibility and respective capabilities" set out in the Convention, developed country Parties are to provide financial resources to assist developing country Parties in implementing the objectives of the UNFCCC. The Paris Agreement reaffirms the obligations of developed countries, while for the first time also encouraging voluntary contributions by other Parties. Developed country Parties should also continue to take the lead in mobilizing climate finance from a wide variety of sources, instruments and channels, noting the significant role of public funds, through a variety of actions, including supporting country-driven strategies, and taking into account the needs and priorities of developing country Parties. Such mobilization of climate finance should represent a progression beyond previous efforts.
- o It is important for all governments and stakeholders to understand and assess the financial needs of developing countries, as well as to understand how these financial resources can be mobilized. Provision of resources should also aim to achieve a balance between adaptation and mitigation.
- Overall, efforts under the Paris Agreement are guided by its aim of making finance flows consistent with a
 pathway towards low greenhouse gas emissions and climate-resilient development. Assessing progress in
 provision and mobilization of support is also part of the global stocktake under the Agreement. The Paris
 Agreement also places emphasis on the transparency and enhanced predictability of financial support.



What is the financial mechanism? What are the other funds?

- To facilitate the provision of climate finance, the Convention established a financial mechanism to provide financial resources to developing country Parties. The financial mechanism also serves the Kyoto Protocol and the Paris Agreement.
- The Convention states that the operation of the financial mechanism can be entrusted to one or more existing
 international entities. The **Global Environment Facility(GEF)** has served as an operating entity of the
 financial mechanism since the Convention's entry into force in 1994.
- At COP 16, in 2010, Parties established the Green Climate Fund (GCF) and in 2011 also designated
 it as an operating entity of the financial mechanism. The financial mechanism is accountable to the COP,
 which decides on its policies, programme priorities and eligibility criteria for funding.
- o In addition to providing guidance to the GEF and the GCF, Parties have established two special funds—the **Special Climate Change Fund (SCCF)** and the **Least Developed Countries Fund (LDCF)**, both managed by the GEF—and the **Adaptation Fund (AF)** established under the Kyoto Protocol in 2001.
- At the Paris Climate Change Conference in 2015, the Parties agreed that the operating entities of the financial mechanism – GCD and GEF – as well as the SCCF and the LDCF shall serve the Paris Agreement. Regarding the Adaptation Fund serving the Paris Agreement negotiations are underway in the Ad hoc Working Group on the Paris Agreement (APA).

Standing Committee on Finance

- o At COP 16 in 2010, Parties decided to establish the Standing Committee on Finance (SCF) to assist the COP in exercising its functions in relation to the financial mechanism of the Convention.
- o Currently, the SCF has **four specific functions**:
- 1. assisting the COP in improving coherence and coordination in the delivery of climate change financing;
- 2. assisting the COP in rationalization of the financial mechanism of the UNFCCC;
- 3. supporting the COP in the mobilization of financial resources for climate financing; and
- 4. supporting the COP in the measurement, reporting and verification of support provided to developing country Parties.
- The Committee is also tasked to organize an annual forum on climate finance, provide the COP with draft guidance for the operating entities, provide expert input into the conduct of the periodic reviews of the financial mechanism and prepare a biennial assessment and overview of climate finance flows. Furthermore, the SCF is designed to improve the linkages and to promote the coordination with climate finance related actors and initiatives both within and outside of the Convention. At the Paris Conference in 2015, Parties decided that the SCF shall also serve the Paris Agreement.

Long-term climate finance

- The long-term finance process is aimed at progressing on the mobilization and scaling up of climate finance of resources originating from a wide variety of sources, public and private, bilateral and multilateral, including alternative sources. The COP decided on the following activities through to 2020: organization, by the secretariat, of annual in-session workshops; developed countries providing, on a biennial basis, information on strategies and approaches for scaling up climate finance; and convening of biennial high-level ministerial dialogue on climate finance.
- o Through the **Cancun Agreements in 2010** developed country Parties committed, in the context of meaningful mitigation actions and transparency on implementation, to a goal of mobilizing jointly USD 100 billion per year by 2020 to address the needs of developing countries. When adopting the Paris Agreement Parties confirmed this goal, called for a concrete road map to achieve the goal by 2020, and agreed that prior to 2025 the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA) shall set a new collective quantified goal from a floor of USD 100 billion per year.

What is the finance portal?

The UNFCCC website includes climate finance data portal with helpful explanations, graphics and figures for better understanding the climate finance process and as a gateway to information on activities funded in developing countries to implement climate action. The finance portal comprises three modules, each of which includes information made available by Parties and the operating entities of the financial mechanism.



- 1. The **first module**, the **National Communications Module**, presents information communicated by contributing countries on the provision of financial resources, in the context of regular reporting to the Convention.
- 2. The **second module**, the **Fast-start Finance Module**, includes information on resources provided by developed countries in the context of their commitment to provide approximately USD 30 billion over the period 2010–2012.
- 3. The **third module**, on Funds Managed by the GEF, is a joint effort between the secretariat of the UNFCCC and the GEF and contains information on climate finance flows of the GEF in its role as one of the operating entities of the financial mechanism to the Convention.
- Additionally, information on projects and programmes of the Adaptation Fund can be found in the finance portal. This fund was established under the Kyoto Protocol to finance concrete adaptation projects and programmes in developing countries that are Parties to the Kyoto Protocol.

4 TEMPLE TURTLE

- Hayagriva Madhava Temple temple in Assam has signed a memorandum of understanding with two
 green NGOs, the Assam State Zoo cum Botanical Garden and the Kamrup district administration for longterm conservation of the rare freshwater black softshell turtle (Nilssonia nigricans).
- A vision document 2030 was also launched after Turtle Survival Alliance India and Help Earth signed the pact involving the Hayagriva Madhava Temple Committee. The temple, revered by both Hindus and Buddhists, is at Hajo, about 30 km northwest of Guwahati.
- o Until sightings along the Brahmaputra River's drainage in Assam, the black softshell turtle was thought to be 'extinct in the wild' and confined only to ponds of temples in northeastern India and Bangladesh.

Critically endangered

- The International Union for Conservation of Nature had in 2021 listed the turtle as 'critically endangered'. But it does not enjoy legal protection under the Indian Wildlife (Protection) Act of 1972 although it has traditionally been hunted for its meat and cartilage, traded in regional and international markets.
- Various temple ponds in Assam such as that of the Hayagriva Madhava Temple harbour
 - of the Hayagriva Madhava Temple harbour various threatened species of turtles. Since the turtles are conserved in these ponds only based on religious grounds, many biological requirements for building a sustainable wild population have since long been overlooked.
- This multi-stakeholder association (conservation pact) aims to restock the wild with viable, self-sufficient and genetically pure threatened turtle populations in the region.



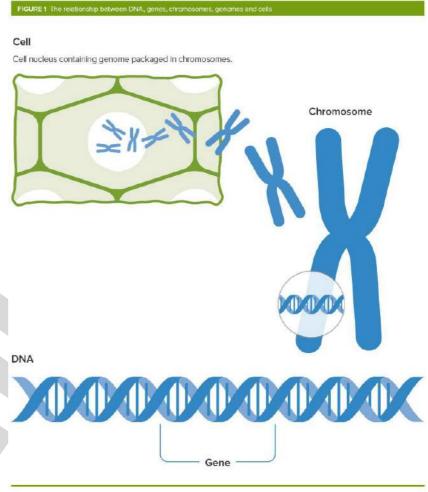


SCIENCE AND TECHNOLOGY

(Inventions, Innovations, Discoveries and Explorations)

4 GM CROPS

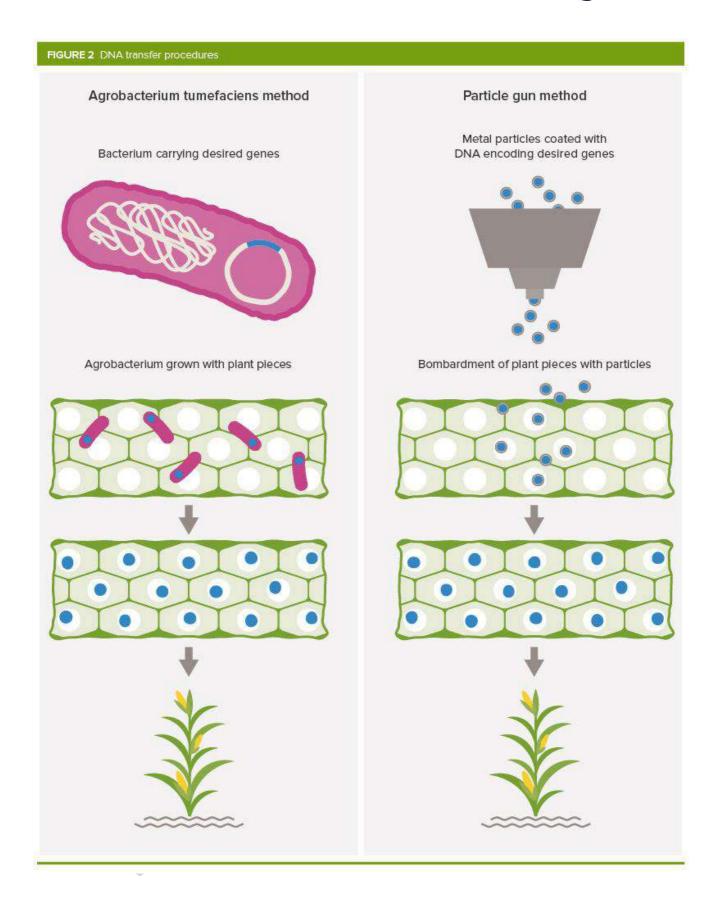
- GM is a technology that involves inserting DNA into the genome of an organism. To produce a GM plant, new DNA
 is transferred into plant cells. Usually, the cells are then grown in tissue culture where they develop into plants. The
 seeds produced by these plants will inherit the new DNA.
- The characteristics of all living organisms are determined by their genetic makeup and its interaction with the environment. The genetic makeup of an organism is its genome, which in all plants and animals is made of DNA. The genome contains genes, regions of DNA that usually carry the instructions for making proteins. It is these proteins that give the plant its characteristics. For example, the colour of flowers is determined by genes that carry the instructions for making proteins involved in producing the pigments that colour petals.
- Genetic modification of plants involves adding a specific stretch of DNA into the plant's genome, giving it new or different characteristics. This could include changing the way the plant grows, or making it resistant to a particular disease. The new DNA becomes part of the GM plant's genome which the seeds produced by these plants will contain.
- The first stage in making a GM plant requires transfer of DNA into a plant cell. One of the methods used to transfer DNA is to coat the surface of small metal particles with the relevant DNA fragment, and bombard the particles into the plant cells.
- Another method is to use a bacterium or virus. There are many viruses and bacteria that transfer their DNA into a host cell as a normal part of their life cycle. For GM plants, the bacterium most frequently used is called Agrobacterium tumefaciens.
- o The gene of interest is transferred into the bacterium and the bacterial cells then transfer the new DNA to the genome of the plant cells. The plant cells that have successfully taken up the DNA are then grown to create a new plant. This is possible because individual plant cells have an impressive capacity to generate entire plants. On rare occasions, the process of DNA transfer can happen



without deliberate human intervention. For example the sweet potato contains DNA sequences that were transferred thousands of years ago, from Agrobacterium bacteria into the sweet potato genome.

 There are other ways to change the genomes of crops, some of which are long established, such as mutational breeding, and others of which are new, such as genome editing.







GM RUBBER

- o World's First Genetically Modified Rubber Planted In Guwahati.
- The crop was developed in Kerala Rubber Research Institute of India. Dismissing the apprehension over GM crops, the officials said that the it was developed only after taking bio-safety measures into consideration.
- The GM rubber has additional copies of the gene MnSOD, or manganese-containing superoxide dismutase, inserted
 in the plant, which is expected to tide over the severe cold conditions during winter in the northeast.
- The MnSOD gene has the ability to protect plants from the adverse effects of severe environmental stresses such as cold and drought.

Need:

- Natural rubber is a native of warm humid Amazon forests and is not naturally suited for the colder conditions in the Northeast, which is one of the largest producers of rubber in India.
- o Growth of young rubber plants remains suspended during the winter months, which are also characterised by progressive drying of the soil. This is the reason for the long immaturity period of this crop in the region.

India's National Rubber Policy:

- The Department of Commerce brought out the National Rubber Policy in March 2019.
- The policy includes several provisions to support the Natural Rubber (NR) production sector and the entire rubber industry value chain.
- It covers new planting and replanting of rubber, support for growers, processing and marketing of natural rubber, labour shortage, grower forums, external trade, Centre-State integrated strategies, research, training, rubber product manufacturing and export, climate change concerns and carbon market.
- It is based on the short term and long term strategies identified by the Task Force constituted on the rubber sector for mitigating problems faced by rubber growers in the country.
- Developmental and research activities for supporting the NR sector for the welfare of growers are carried out through Rubber Board by implementing the scheme Sustainable and Inclusive Development of Natural Rubber Sector in the Medium Term Framework (MTF) (2017-18 to 2019-20).
- The developmental activities include financial and technical assistance for planting, supply of quality planting materials, support for grower forums, training and skill development programme.

4 ANTIMICROBIAL RESISTANCE

Key Facts

- Antimicrobial resistance (AMR) is a global health and development threat. It requires urgent multisectoral action in order to achieve the Sustainable Development Goals (SDGs).
- WHO has declared that AMR is one of the top 10 global public health threats facing humanity.
- o Misuse and overuse of antimicrobials are the main drivers in the development of drug-resistant pathogens.
- Lack of clean water and sanitation and inadequate infection prevention and control promotes the spread of microbes, some of which can be resistant to antimicrobial treatment.
- The cost of AMR to the economy is significant. In addition to death and disability, prolonged illness results in longer hospital stays, the need for more expensive medicines and financial challenges for those impacted.
- Without effective antimicrobials, the success of modern medicine in treating infections, including during major surgery and cancer chemotherapy, would be at increased risk.



What are antimicrobials?

 Antimicrobials – including antibiotics, antivirals, antifungals and antiparasitics – are medicines used to prevent and treat infections in humans, animals and plants.

What is antimicrobial resistance?

- Antimicrobial Resistance (AMR) occurs when bacteria, viruses, fungi and parasites change over time and no longer respond to medicines making infections harder to treat and increasing the risk of disease spread, severe illness and death.
- As a result of drug resistance, antibiotics and other antimicrobial medicines become ineffective and infections become
 increasingly difficult or impossible to treat.

Why is antimicrobial resistance a global concern?

- The emergence and spread of drug-resistant pathogens that have acquired new resistance mechanisms, leading to
 antimicrobial resistance, continues to threaten our ability to treat common infections. Especially alarming is the
 rapid global spread of multi- and pan-resistant bacteria (also known as "superbugs") that cause infections that are
 not treatable with existing antimicrobial medicines such as antibiotics.
- The clinical pipeline of new antimicrobials is dry. In 2019 WHO identified 32 antibiotics in clinical development that
 address the WHO list of priority pathogens, of which only six were classified as innovative. Furthermore, a lack of
 access to quality antimicrobials remains a major issue. Antibiotic shortages are affecting countries of all levels of
 development and especially in health- care systems.
- Antibiotics are becoming increasingly ineffective as drug-resistance spreads globally leading to more difficult to treat
 infections and death. New antibacterials are urgently needed for example, to treat carbapenem-resistant gramnegative bacterial infections as identified in the WHO priority pathogen list. However, if people do not change the
 way antibiotics are used now, these new antibiotics will suffer the same fate as the current ones and become
 ineffective.
- The cost of AMR to national economies and their health systems is significant as it affects productivity of patients
 or their caretakers through prolonged hospital stays and the need for more expensive and intensive care.
- Without effective tools for the prevention and adequate treatment of drug-resistant infections and improved access
 to existing and new quality-assured antimicrobials, the number of people for whom treatment is failing or who die of
 infections will increase. Medical procedures, such as surgery, including caesarean sections or hip replacements,
 cancer chemotherapy, and organ transplantation, will become more risky.

What accelerates the emergence and spread of antimicrobial resistance?

- o AMR occurs naturally over time, usually through genetic changes. Antimicrobial resistant organisms are found in people, animals, food, plants and the environment (in water, soil and air).
- They can spread from person to person or between people and animals, including from food of animal origin. The main drivers of antimicrobial resistance include the misuse and overuse of antimicrobials; lack of access to clean water, sanitation and hygiene (WASH) for both humans and animals; poor infection and disease prevention and control in health-care facilities and farms; poor access to quality, affordable medicines, vaccines and diagnostics; lack of awareness and knowledge; and lack of enforcement of legislation.

CARBON CAPTURE AND STORAGE TECHNOLOGY

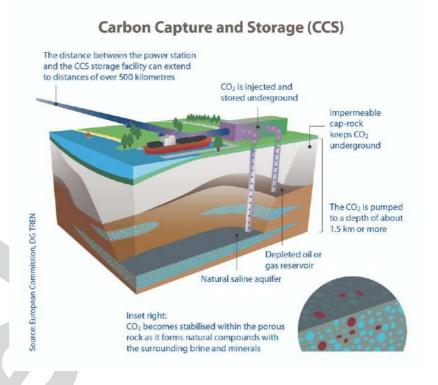
- Carbon capture and storage technology (CCS) has been hailed as a key component in the world's shift towards renewable energy.
- With global CO2 emissions hitting a historic high, growing by more than 1.3% to a record of more than 33 billion tonnes, the need for tools that can help limit pollution has never been greater.



- The Global CCS Institute claims CO2 emissions from fossil fuel combustion in the energy sector contribute roughly 30% to the amount of the pollutant present in the EU, specifically.
- Renewable energy presents a possible solution to this, but its ability to cater the world's power demand, which is expected to rise by 50% by 2030, according to the UK's Carbon Capture and Storage Association (CCSA), is up for debate – this is where CCS comes in.
- The International Energy Agency recently concluded that, to meet the goals of the Paris Agreement, CCS will need to contribute 32% of the extra effort to move from a 2C scenario to well below 2C.
- The Intergovernmental Panel on Climate Change (IPCC) has estimated that without CCS, the cost of trying to meet global climate change goals will increase by almost 140%.
 - Here we take a closer look at CCS and how it works.

What is carbon capture and storage technology?

- CCS is a technology reportedly capable of capturing up to 90% of the CO2 emissions produced by the burning of fossil fuels to generate electricity, as well as those used in industrial processes, and prevent it from polluting the atmosphere.
- Fossil fuel power plants can be built with the technology already integrated or it can also be combined with renewable biomass to create a "carbon-negative" mode the goes one step further by actually removing CO2 from the planet.
- The Global CCS Institute says there are 18 large-scale CCS facilities currently in operation, with an additional five under construction.



- Some carbon storage facilities date back multiple decades, such as the Sleipner project in the North Sea, while others remain under construction, like the Gorgon project in Western Australia.
- First, CCS involves capturing CO2, before transporting it to be stored in geological rock formations thousands of metres below the Earth's surface.
- The initial part of the process involves separating CO2 from the gasses produced in power generation and industrial processes, such as manufacturing cement or steel, by pre-combustion capture, post-combustion capture or oxy-fuel combustion.
- The pollutant is then transporting using either a pipeline or a ship in much the same way the millions of tonnes of CO2 are transported each year for various commercial purposes, chiefly by countries such as the US.
- o It is then stored in depleted oil and gas fields or deep saline aquifer formations, which the Intergovernmental Panel on Climate Change (IPCC) says can retain 99% of the pollutant over a 1000-year period.
- At every point in the CCS chain, from production to storage, industry has at its disposal a number of process technologies that are well understood and have excellent health and safety records
- The commercial deployment of CCS will involve the widespread adoption of these techniques, combined with robust monitoring techniques and government regulation.



Capturing CO2

Pre-combustion capture

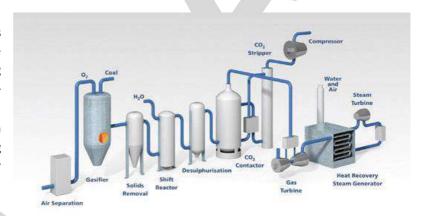
- o Pre-combustion systems, as provided by manufacturing companies such as British engineering firm **Costain**, convert solid, liquid or gaseous fuel into a blend of hydrogen and CO2 using processes like "gasification" or "reforming".
- This can then be used to fuel electricity production, and the CCSA claims it will be able to power vehicles and provide heating, with extremely low emissions, in the future.

Post-combustion capture

- Post-combustion capture involves capturing the CO2 from the exhaust of a combustion system and absorbing it into a solvent, before removing and compressing the pollutant elements.
- o CO2 can also be separated using high-pressure membrane filtration, as well as cryogenic separation processes.

Oxy-fuel combustion

- Using oxy-fuel combustion, oxygen is separated from the air before combustion, with the fuel then being combusted in oxygen using recycled fluegas.
- This creates an atmosphere full of oxygen and nitrogen with flue-gases comprising CO2 and water, allowing for easier purification of the former.

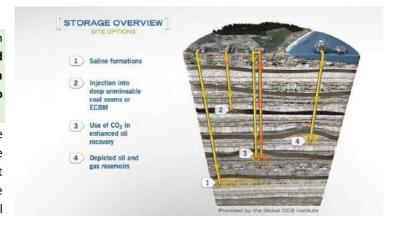


Transporting CO2

- Transporting captured CO2 involves many of the same techniques as used for oil and natural gas, including road tankers, ships and pipelines.
- Many of the networks in use today have been operational for more than 30 years, providing safe and regulationconsistent methods of getting the pollutant from A to B.
- The CCSA says: "There is significant potential for the development of local and regional CCS pipeline infrastructure, leading to CCS 'clusters' where CO2-intensive industries could locate".
- Developing clusters, where infrastructure can be shared by a number of industrial sources of carbon dioxide emissions, will result in the most cost-effective way to deliver CCS infrastructure development and ultimately lower costs to consumers.

Storing CO2

- Storage sites for captured CO2 range from defunct oil and gas fields to underground saline formations, porous rocks filled with salt water, while it can also injected into depleting oil fields to increase their output.
- After being injected into such a formation, the CO2 is trapped by a layer of impermeable rock, known as the cap rock, preventing it from entering and polluting the atmosphere above in a process referred to as "structural storage."





 Deep saline aquifers offer the greatest storage capacity over the long term, according to the CCSA, but remain a relative unknown in many areas.

4 RARE EARTH ELEMENTS

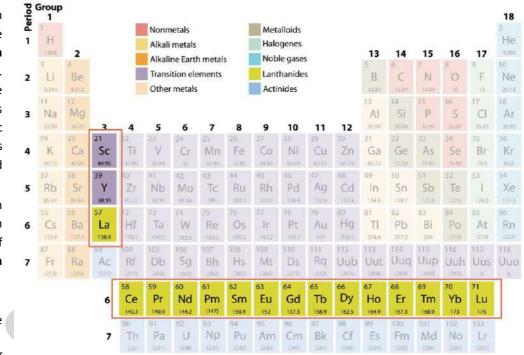
China's dominance in these minerals, key to the future of manufacturing, is a cause for concern for the West.

- o In 2019, the U.S. imported 80% of its rare earth minerals from China.
- o The EU gets 98% of its supply from China.
- Amid the transition to green energy, in which rare earth minerals are sure to play a role, China's market dominance is enough to sound an alarm in western capitals.

What if China were to cut off the U.S. and Europe from access to rare minerals that are essential to electric vehicles, wind turbines and drones?

REE

- The rare earth elements (REE) are a set of seventeen metallic elements.
 These include the fifteen lanthanides on the periodic table plus scandium and yttrium.
- Rare earth elements are an essential part of many high-tech devices.
- Rare-earth
 elements (REE) are
 necessary
 components of



more than 200 products across a wide range of applications, especially high-tech consumer products, such as cellular telephones, computer hard drives, electric and hybrid vehicles, and flat-screen monitors and televisions.

- Significant defense applications include electronic displays, guidance systems, lasers, and radar and sonar systems.
 Although the amount of REE used in a product may not be a significant part of that product by weight, value, or volume, the REE can be necessary for the device to function. For example, magnets made of REE often represent only a small fraction of the total weight, but without them, the spindle motors and voice coils of desktops and laptops would not be possible.
- o The Japanese call them "the seeds of technology." The US Department of Energy calls them "technology metals."
- In 1993, 38 percent of world production of REEs was in China, 33 percent was in the United States, 12 percent was in Australia, and five percent each was in Malaysia and India. Several other countries, including Brazil, Canada, South Africa, Sri Lanka, and Thailand, made up the remainder. However, in 2008, China accounted for more than 90 percent of world production of REEs, and by 2011, China accounted for 97 percent of world production. Beginning in 1990 and beyond, supplies of REEs became an issue as the Government of China began to change the amount of the REEs that it allows to be produced and exported. The Chinese Government also began to limit the number of Chinese and Sino-foreign joint-venture companies that could export REEs from China.

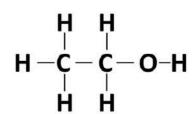


4 ETHANOL PRODUCTION

- o Ethanol is a renewable biofuel because it is made from biomass.
- Ethanol is a clear, colorless alcohol made from a variety of biomass materials called feedstocks (the raw materials used to make a product).
- Ethanol can also be made from grasses, trees, and agricultural and forestry residues such as corn cobs and stocks, rice straw, sawdust, and wood chips. Ethanol is made from these feedstocks in several ways.
- Ethanol (CH3CH2OH) has the same chemical formula regardless of whether it is produced from starch- or sugar-based feedstocks.

Fermentation is the most common method for producing fuel ethanol

- The most common ethanol production processes today use yeast to ferment
 the starch and sugars in corn, sugar cane, and sugar beets. Corn is the main
 feedstock for fuel ethanol in the United States because of its abundance and
 relatively low price historically. The starch in corn kernels is fermented into
 sugar, which is then fermented into alcohol.
- Sugar cane and sugar beets are the most common feedstocks used to make fuel ethanol in other parts of the world. Because alcohol is made by fermenting sugar, sugar crops are the easiest ingredients to convert into alcohol.
- Brazil, the world's second-largest fuel ethanol producer after the United States, makes most of its fuel ethanol from sugar cane. Most of the cars in Brazil can run on pure ethanol or on a blend of gasoline and ethanol.



- o Cellulosic ethanol is a large potential source of fuel ethanol.
- Ethanol can also be produced by breaking down cellulose in plant fibers. This cellulosic ethanol is considered an advanced biofuel and involves a more complicated and costly production process than fermentation. However, there are large potential non-food crop sources of cellulosic feedstocks. Trees, grasses, and agricultural residues are potential feedstocks for cellulosic ethanol production. Trees and grasses require less energy, fertilizers, and water to grow than grains do, and they can also be grown on lands that are not suitable for growing food crops.
- Scientists have developed fast-growing trees that grow to full size in 10 years. Many grasses can produce two harvests
 a year for many years without annual replanting. Despite the technical potential for cellulosic ethanol production,
 economical production has been difficult to achieve and only relatively small amounts of cellulosic fuel ethanol have
 been produced United States.
- Ethanol has a higher octane number than gasoline, providing premium blending properties. Minimum octane number requirements for gasoline prevent engine knocking and ensure drivability. Lower-octane gasoline is blended with 10% ethanol to attain the standard 87 octane.

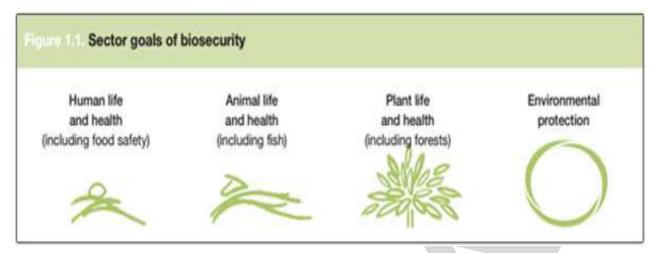
History of ethanol

In the 1850s, ethanol was a major lighting fuel. During the Civil War, a liquor tax was placed on ethanol to raise money for the war. The tax increased the price of ethanol so much that it could no longer compete with other fuels such as kerosene. Ethanol production declined sharply because of this tax, and production levels did not begin to recover until the tax was repealed in 1906.

BIOSECURITY

Biosecurity is defined by the Food and Agriculture Organization of the United Nations (FAO) as a strategic
and integrated approach that encompasses the policy and regulatory frameworks (including
instruments and activities) for analysing and managing relevant risks to human, animal and plant life and
health, and associated risks to the environment.





- Ouring these past years, biosecurity as a concept has evolved with its application and it has a great variability in meaning in different countries when used in various national instruments and primary laws. This, in the context of an increasing public awareness of the impact of adverse health and environmental practices fuelled by technological advances in detection and management of hazards to life and health, together with the often-unresolved scientific debate that surrounds the potential of very low levels of hazards to result in adverse health or environmental impact.
- Biosecurity covers food safety, zoonoses, the introduction of animal and plant diseases and pests, the introduction and release of living modified organisms (LMOs) and their products (e.g. genetically modified organisms or GMOs), and the introduction and management of invasive alien species.
- o Thus, biosecurity is a holistic concept of direct relevance to the sustainability of agriculture, and wideranging aspects of public health and protection of the environment, including biological diversity.

Why developing biosecurity tools?

Interest in managing these risks through biosecurity has risen considerably over the last 20 years with the rise of several trends:

- o The increasing trade in food, plant and animal products, more international travel, new outbreaks of transboundary disease affecting animals, plants and people;
- The awareness of biological diversity and greater attention to the environment and the impact of agriculture on environmental sustainability;
- Changes in the way food, plants and animals are produced, processed and distributed, and the use of new technologies,
- o The need to comply with global agreements governing the trade in agricultural and food products.

During the past 20 years, some governments have moved towards such integrated approach to biosecurity that harmonizes and rationalizes policy, legislation and core roles and responsibilities as a means to better manage relevant risks in food and agriculture. However, most countries continued to manage biosecurity along traditional, sector-oriented lines, resulting in a lack of strategic focus, inefficient use of scarce resources and less than optimal results.

What constitutes a biosecurity hazard?

Depending on the sector involved and as illustrated in the figure, there are various descriptions as to what constitutes a biosecurity hazard, All significant effects, positive and negative (hazards), should be systematically identified and their relative magnitudes considered in decision-making.



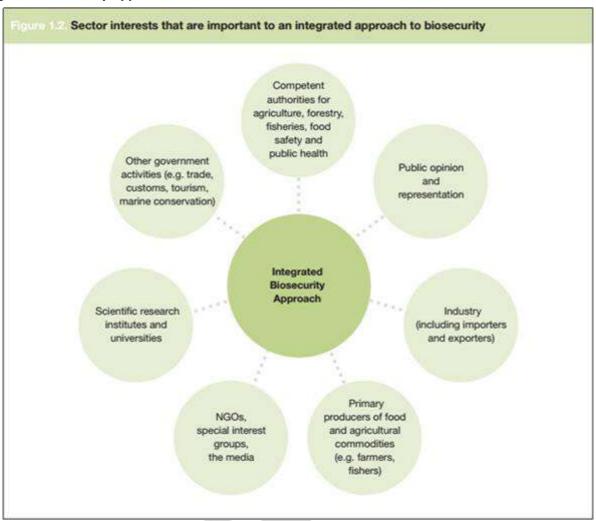
Food safety	A biological, chemical or physical agent in, or condition of, food with the potential to cause an adverse health effect (CAC).
Zoonoses	A biological agent that can be transmitted naturally between wild or domestic animals and humans (OIE).
Animal health	Any pathogenic agent that could produce adverse consequences on the importation of a commodity (OIE).
Plant health	Any species, strain or biotype of plant, animal or pathogenic agent injurious to plants or plant products (IPPC).*
Plant health quarantine	A pest of potential economic importance to the area endangered thereby and not yet present there, or present but not widely distributed and being officially controlled (IPPC).
"Biosafety" in relation to plants and animals	A living modified organism (LMO) that possesses a novel combination of genetic material obtained through the use of modern biotechnology that is likely to have adverse effects on the conservation and sustainable use of biological diversity, taking also into account risks to human health (Cartagent Protocol on Biosafety).
"Biosafety" in relation to food	A recombinant DNA organism directly effecting or remaining in a food that could have an adverse effect on human health (Cartagena Protocol on Biosafety).
Invasive alien species	An invasive alien species outside its natural past or present distribution whose introduction and/or spread threatens biodiversity (CBD).

What is the rationale for a harmonized and holistic approach of biosecurity?

- Human, animal and plant life, health and protection of the environment but also agriculture and health are inextricably linked in many ways. Biosecurity hazards of various types exist in each sector and have high potential to move between sectors. For example, many animal pathogens readily infect humans; animal feed may be contaminated with mycotoxins and plant toxins.
- Changes in the environment, such as the loss of biological diversity and contamination of food and water sources, the size and scope of the global trade in animal feed and animal feed ingredients are examples of the immense potential for biosecurity hazards to move between and within countries.
- o Further, international events may superimpose requirements for more integrated and harmonized approaches. In particular, there is an increased recognition of the potential for wide-scale food-borne threats to public or animal health from acts of terrorism is a new consideration in modern biosecurity systems.
- The merging of policies and values with science in biosecurity risk management presents considerable challenges and has different expression in different countries. As underlined in the FAO Toolkit, both risk assessment and risk management should thus be wrapped in a "sea of communication" that includes all stakeholders as appropriate.
- o Core decisions should involve the balancing of scientific findings against questions of life and health expectations, likely economic and social impacts, but also the technical feasibility and cost-effectiveness of controls. The increasing number and stringency of sanitary and phytosanitary requirements, the recognition of the high cost of regulation and acknowledgement of limited public resources are other drivers of these holistic changes. On top of this, there are increasing demands from industry for better cost-effectiveness of biosecurity systems and greater accommodation of new technologies.



Integrated Biosecurity Approach



4 DEEP OCEAN MISSION

- o Oceans, which cover 70 per cent of the globe, remain a key part of our life. About 95 percent of Deep Ocean remains unexplored.
- For India, with its three sides surrounded by the oceans and around 30 per cent of the country's population living in coastal areas, ocean is a major economic factor supporting fisheries and aquaculture, tourism, livelihoods and blue trade.
- o Oceans are also storehouse of food, energy, minerals, medicines, modulator of weather and climate and underpin life on Earth.
- Considering importance of the oceans on sustainability, the United Nations (UN) has declared the decade,
 2021-2030 as the Decade of Ocean Science for Sustainable Development.
- o India has a unique maritime position. Its 7517 km long coastline is home to nine coastal states and 1382 islands. The Government of India's **Vision of New India by 2030** enunciated in 2019 highlighted the **Blue Economy** as one of the ten core dimensions of growth.
- On this, the Cabinet Committee on Economic Affairs has approved the proposal of Ministry of Earth Sciences (MoES) on "Deep Ocean Mission", with a view to explore deep ocean for resources and develop deep sea technologies for sustainable use of ocean resources.
- o The estimated cost of the Mission will be Rs. 4077 crore for a period of 5 years to be implemented in a phase-wise manner. The estimated cost for the first phase for the 3 years (2021-2024) would be Rs.2823.4 crore.



- Deep Ocean Mission with be a mission mode project to support the Blue Economy Initiatives of the Government of India. Ministry of Earth Sciences (MoES) will be the nodal Ministry implementing this multi-institutional ambitious mission.
- o The Deep Ocean Mission consists of the following six major components:
- 1. Development of Technologies for Deep Sea Mining, and Manned Submersible: A manned submersible will be developed to carry three people to a depth of 6000 metres in the ocean with suite of scientific sensors and tools. Only a very few countries have acquired this capability. An Integrated Mining System will be also developed for mining Polymetallic Nodules from 6000 m depth in the central Indian Ocean. The exploration studies of minerals will pave way for the commercial exploitation in the near future, as and when commercial exploitation code is evolved by the International Seabed Authority, an UN organization. This component will help the Blue Economy priority area of exploring and harnessing of deep sea minerals and energy.
- **2. Development of Ocean Climate Change Advisory Services**: A suite of observations and models will be developed to understand and provide future projections of important climate variables on seasonal to decadal time scales under this proof of concept component. This component will support the Blue Economy priority area of coastal tourism.
- **3.** Technological innovations for exploration and conservation of deep-sea biodiversity: Bioprospecting of deep sea flora and fauna including microbes and studies on sustainable utilization of deep sea bio-resources will be the main focus. This component will support the Blue Economy priority area of Marine Fisheries and allied services.
- **4. Deep Ocean Survey and Exploration**: The primary objective of this component is to explore and identify potential sites of multi-metal Hydrothermal Sulphides mineralization along the Indian Ocean mid-oceanic ridges. This component will additionally support the Blue Economy priority area of deep sea exploration of ocean resources.
- **5. Energy and freshwater from the Ocean**: Studies and detailed engineering design for offshore Ocean Thermal Energy Conversion (OTEC) powered desalination plant are envisaged in this proof of concept proposal. This component will support the Blue Economy priority area of off-shore energy development.
- **6. Advanced Marine Station for Ocean Biology**: This component is aimed as development of human capacity and enterprise in ocean biology and engineering. This component will translate research into industrial application and product development through on-site business incubator facilities. This component will support the Blue Economy priority area of Marine Biology, Blue trade and Blue manufacturing.

4 GOD PARTICLE

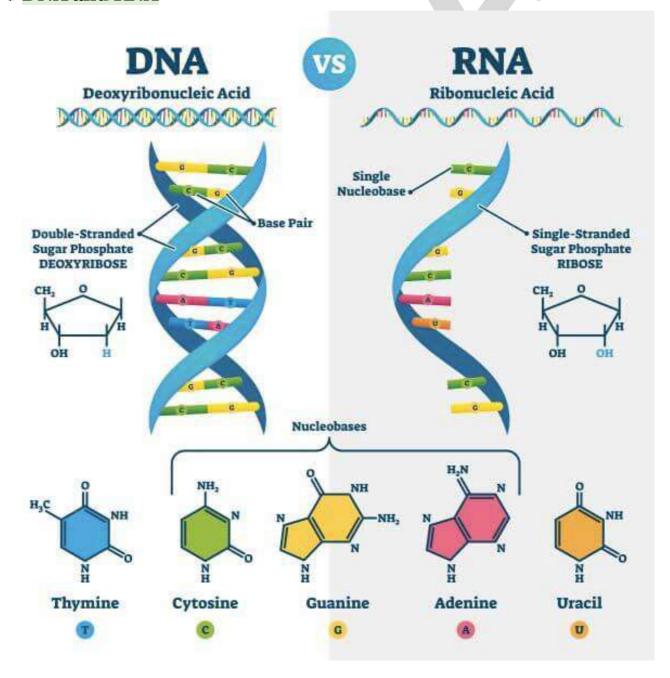
- Peter Higgs suggested that particles did not have mass just after Big Bang. As the universe cooled and temperature fell below the critical point, an invisible force field got formed which has been termed the Higgs Field.
- The associated particles with the Higgs field have been termed the **Higgs Boson.** It has been theorized that
 any particle that interacted with these Higgs Boson got mass and those particles that were left out of the
 Higgs field remained massless.
- As these Higgs Bosons have the capability to grant mass, the primary condition for the existence of matter, they were termed as the God particle.
- The Big Bang Theory is the leading explanation about how the universe began. It talks about the universe as
 we know it starting with a small singularity, then inflating over the next 13.8 billion years to the cosmos that
 we know today.



4 NEUTRINOS

- o They are produced by the decay of radioactive elements. After Photons (light carriers) they are the most abundant particles in the cosmos. They propagate over large distances even through solid matter.
- o They have mass, but it is exceedingly small, a tiny fraction of the mass of a proton
- o There are 3 types of neutrinos, called flavors.
- One related to the electron, one related to muon and the third type is related to tau.
- The main difference between the neutrinos and their "relatives" is that neutrinos are electrically neutral, while the electron, muon, and tau are electrically charged.
- Neutrinos are difficult to detect, because they do not readily interact with other forms of matter. But using special equipment located in deep underground laboratories where no other cosmic particles can penetrate, scientists have detected neutrinos and discovered some of their properties.

DNA and RNA





Parameter	DNAs	RNA
Structure	DNA is a double-stranded molecule consisting of a long chain of nucleotides. B type of helix.	It is a single-stranded helix consisting of a short chain of nucleotides. A type of helix.
Function	Transmits genetic information to make other cells and new organisms. Long-term storage of genetic information	It transfers the genetic code from the nucleus to the ribosomes to make proteins.
Propagation	DNA is self-replicating.	Synthesized from DNA.
Composition	Deoxyribose sugar phosphate backbone adenine, guanine, cytosine, thymine bases.	Ribose sugar phosphate backbone adenine, guanine, cytosine, uracil bases.
Location	In the nucleus of a cell and in the mitochondria.	Located in the cytoplasm, nucleus, and in the ribosome.
Nitrogenous Bases and Pairing	GC (Guanine pairs with Cytosine) A – T (Adenine pairs with Thymine).	GC (Guanine pairs with Cytosine) A-U (Adenine pairs with Uracil)
Molecular Weight	2 to 6 million	25,000 to 2 million
Stability	DNA is a more stable molecule than RNA. DNA is stable under alkaline conditions.	Much more reactive than DNA and is not stable in alkaline conditions.
Ultraviolet (UV) Sensitivity	DNA is vulnerable to damage by ultraviolet light.	Much more resistant to damage from UV light than DNA.





INDIAN POLITY

(Constitution; Polity and Governance)

4 SEDITION LAW IN INDIA

According to the Chief Justice of India, NV Ramana, the effect of Section 124 A of the Indian Penal Code is that instead of one tree, the entire forest gets cut, questioning the Centre whether there is any necessity of the provision after 73 years of Independence.

The sedition law was meant to suppress the freedom movement and was used by the Britishers to silence Mahatma Gandhi and others, the court noted.

- The law of sedition has always been one of the most contentious topics of constitutional law jurisprudence in India, with views ranging from calls for the complete abolition while many others have called for retaining the provision but keeping its implementation within defined legal limits, to strike a balance between national security and fundamental rights.
- o The Public debate over this issue was reignited recently when a three-judge division bench of the Supreme Court said in an order on May 31, 2021, in the case of M/s Aamoda Broadcasting Company Pvt. Ltd. & Anr. v. The State of Andhra Pradesh & Ors. (W.P. (Cr.) No. 217/2021) that "there is a need to define the limits of sedition".
- Later a two-judge division bench of the apex court, in the case of Vinod Dua v. Union of India & Ors.,
 quashed an FIR (first information report) against the petitioner, journalist Vinod Dua, for the offence of sedition.
- o In its judgment, the court made an observation that every journalist shall be protected from the charge of sedition taking into account the interpretation of the offence as propounded in the court's landmark judgment in the case of **Kedar Nath Singh v. State of Bihar.**
- Since the Supreme Court itself has recognized that there is a need to re-examine these laws, it is important
 to trace the jurisprudence by Indian courts that have contributed to the present-day conception of the law of
 sedition.

Genesis of Section 124A of the Indian Penal Code, and pre-independence jurisprudence

- The sedition clause is a vestige of British colonial rule, originally introduced to suppress critical voices emanating from the Indian freedom movement. Section 124A of the Indian Penal Code, 1860 (IPC), as we have today, was absent from the original draft of Macaulay's IPC in 1860, and was only introduced in the year 1870, piloted by James Stephen.
- o This version went through further modification through the **IPC (Amendment Act)**, **1898**, since when it has largely retained its form.
- o The first notable case for the offence of sedition was reported in **1891**, in the case of **Queen-Empress v.**Jogendra Chunder Bose & Ors., (1892), in which the editors of a Bengali magazine were charged for their criticism of the British Government's policies, specifically regarding the Age of Consent Act, 1891. The publishers argued that the offence of sedition only penalised writing of seditious content and not the publication thereof, and also challenged the existence of the sedition law itself. They contended that penalising people for exercising their rights went against the original intention of the law.
- The next landmark case on this matter was that of Queen-Empress v. Bal Gangadhar Tilak & Keshav Mahadev Bal, (1897). In this case, Bal Gangadhar Tilak was tried for sedition for alleged incitement through speech that led to the killing of two British Officials.
- O About two decades later, Tilak was again tried for sedition in the **case of Emperor v. Bal Gangadhar Tilak**, (1917) 19 Bom LR 211, for an article he wrote in which he advocated the attainment of swarajya ('self-rule') for Indians. In the article, Tilak explicitly admitted his loyalty to the British Crown but went on to criticise the civil services, arguing in court that the civil services and the British government were two distinct entities.



Sedition jurisprudence in independent India

- The case of **Tara Singh Gopi Chand v. The State (1951)** was the first instance of a court in independent India adjudicating on the constitutional validity of section 124A of the IPC. Since India was now an independent republic, constitutional provisions assumed supremacy over British precedents. The then-Punjab High Court, in this case, recognised that section 124A was indisputably a restriction on the freedom of speech and expression, and invalidated the provision on the basis that it was in contravention of the fundamental right of freedom of speech and expression under Article 19 of the Indian constitution.
- o Soon after, independent India's first Parliament passed the Constitution (First Amendment) Act, 1951 which, among other things, sought to resolve the anomaly in the constitutionality of the sedition law as a result of the Tara Singh Gopi Chand judgment. It did so by introducing new grounds on which the right to freedom of speech and expression could be reasonably restricted.
- o In the original Constitution, the only grounds for limiting free speech enumerated in Article 19(2) were the security of the State, defamation, contempt of courts, and decency and morality. The Amendment Act introduced the new grounds of public order, relations with foreign states, and incitement to an offence, for restricting the freedom of speech and expression.
- Now, invocation of the offence of sedition was not confined merely to acts undermining the security of the State or tending to overthrow the State; it merely had to be 'in the interest of the security of the State'. Such wide-meaning terms gave greater discretion to the State invoke the offence of sedition.

The landmark Kedar Nath Singh judgment

- Next, Kedar Nath Singh, which is considered the most authoritative judgement of the Supreme Court on the interpretation of the sedition law. In this matter, a five-judge Constitutional bench of the Supreme Court upheld the constitutional validity of section 124A and went on to clarify the correct position of the sedition law in India. In this case, Kedar Nath Singh, who was a member of the Forward Communist Party of Bihar, was charged with sedition for making insulting speeches against the ruling Indian National Congress government.
- The apex court clarified that section 124A could not be used to stifle free speech, and could only be invoked if it could be proven that the seditious speech in question led to the incitement to violence or would result in public disorder. Since Kedar Nath criticised the Congress party and not the Indian State, and the speech in question did not lead to any incitement to violence, therefore it did not amount to sedition.

Post-Kedar Nath Singh developments

- o In another important decision, in the case of **Balwant Singh & Anr. v. State Of Punjab, 1995** (, the accused had been prosecuted for the offence of sedition as he had engaged in sloganeering in favour of an independent Sikh majority state in the wake of Indira Gandhi's assassination. A two-judge division bench of the Supreme Court ruled in favour of the accused, on the rationale that since the speech in question did not lead to any disturbance of public order, and was not likely to incite any violence in the minds of the target audience, Balwant Singh's actions, therefore, did not amount to sedition.
- The Law Commission of India, in its Consultation Paper on "Sedition", published in 2018, observed
 that while retaining the offence of sedition was essential to protect national integrity, it should not be used
 as a tool to curb free speech.
- According to data from the National Crime Records Bureau, there has been a significant increase in the number of cases filed under section 124A of the IPC, with such cases rising by 160%, between 2016 and 2019, while the conviction rate for such offences dropped from 33.3% to 3.3.% for the same period. This clearly indicates that the State has been misusing this provision to file baseless or frivolous cases. Such abuse is bound to affect the free speech of citizens by forcing them to self-censor.

Hence, there is an imminent need to relook the invocation of sedition under section 124A, and ensure that the offence is used within defined legal limits, so as to strike a balance between national security and the fundamental rights of citizens.

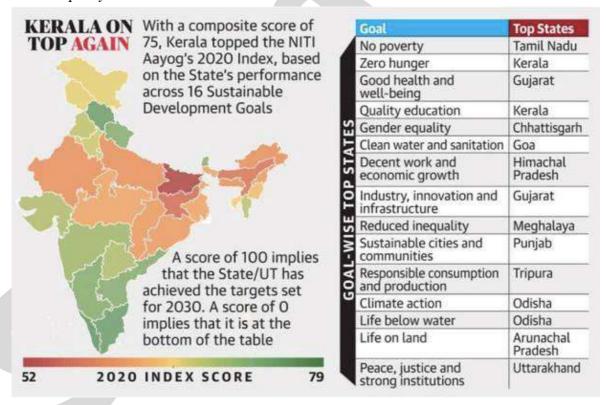


SDG GOALS PROGRESS

- o India saw significant improvement in the Sustainable Development Goals (SDGs) related to clean energy, urban development and health in 2020, according to the NITI Aayog's 2020 SDG Index.
- However, there has been a major decline in the areas of industry, innovation and infrastructure as well as decent work and economic growth.
- **Kerala retained its position at the top** of the rankings in the third edition of the index, with a score of 75, followed by **Tamil Nadu and Himachal Pradesh**, both scoring 72.
- o At the other end of the scale, Bihar, Jharkhand and Assam were the worst performing States.
- However, all States showed some improvement from last year's scores, with Mizoram and Haryana seeing the biggest gains.

Holistic development

- Developed by a global consultative process on holistic development, the 17 SDGs have a 2030 deadline. The NITI Aayog launched its index in 2018 to monitor the country's progress on the goals through data-driven assessment, and foster a competitive spirit among the States and Union Territories in achieving them.
- o In March, a UN assessment of the impact of COVID-19 on the SDGs said the region India is part of may see rising inequality due to the pandemic. The NITI Aayog Index shows some improvement in the SDG on inequality, but a look at the indicators used to assess this goal shows that the think tank has changed the goalposts.
- o In 2019, the indicators for inequality included the growth rates for household expenditure per capita among the bottom 40% of rural and urban populations, as well as the Gini coefficient a measure of the distribution of income in rural and urban India. The 2018 indicators included the **Palma ratio**, another metric for income inequality.



Greater weightage

Such economic measures have been omitted from the indicators used for this SDG in the 2020 edition of the
 NITI Aayog's Index. Instead, it gives greater weightage to social equality indicators such as the



percentage of women and SC/ST representatives in State legislatures and the Panchayati raj institutions, and the levels of crime against SC/ST communities.

- o The only economic indicator this year is the percentage of population in the lowest two wealth quintiles.
- o The SDGs that do deal directly with wages and industrial growth better reflect the fact that India's economy has taken a beating over the last year. The country's score on the SDG related to industry and infrastructure dropped 10 points to 55, while the scores on decent work dropped three points to 61. The Clean Water and Sanitation SDG also saw a five-point drop, despite flagship government schemes in this sector. In a more welcome development, the SDGs on eradication of poverty and hunger both saw significant improvement.

4 COOPERATIVE FEDERALISM

- o Federalism is derived from the Latin word **foedus**, which means **'agreement' or 'treaty'**. Thus, a federation is a new state (political system) that is formed through a treaty or an agreement between the various units. It is a philosophy or ideology of political organization that involves a combination of the principles of centralization, non-centralization, and power-sharing.
- In a country like India, the spirit of co-operative federalism should guide the relations between the Centre
 and the States on the one hand, among different States and between the States and the Panchayati Raj
 Institutions and the Urban Local Bodies.

History of Cooperative Federalism in India

- o Since the ancient period, kingdoms or empires have ruled the Indian subcontinent through a federal policy of non-intervention in local affairs. This policy of non-intervention in local affairs was a practical necessity because natural diversities of the people of the subcontinent were so great that they could only be made a part of a single empire if no or very little effort was made to impose a common set of beliefs.
- Successful monarch Akbar understood diversities of the subcontinent and hence ruled through a policy of cooperative Federalism.
- Further disintegration of Maurya's and Mughals is partly attributed to centralized tendencies of monarchs like Jahangir and Aurangzeb. Moreover, after the Revolt of 1857, when the British decided to withdrew their interventionist measures like Doctrine of Lapse and banned the use of greased cartridges of animal fat, the British were simply conforming to a pattern of Government that was already ages old.
- Then seeds of Cooperative federalism can be traced right from the Regulating Act of 1773
 which set up a system whereby the British Government supervised the work of the East India Company but
 did not take power for itself.
- The Government of India Act 1919 provided for a federal India, however superficial, by envisaging a dual form of government called 'dyarchy.' The same was sought to be achieved by the Government of India Act, 1935.
- o From 1946 to 1950, the leaders of India's Freedom Movement and the founding fathers of the Constitution had the task of drafting the Constitution. The members of the Constituent Assembly aimed to build a united polity out of a highly fragmented and segmented society, which they attempted through strengthening the "Union" or federal order, by shifting residuary powers to it.
- Many politicians thought that only a strong center could effectively drive economic development and ensure equity. Hence the trend generally was toward ever more centralization under the Congress Party from independence to the 1980s. During the 1980s, however, Union-state relations became more rancorous, the Congress party began to decline, and a coalition government, the National Front, assumed power in New Delhi as a result of the 1989 elections in part because centralized federalism driven by a monopoly party for some 40 years had fallen far short to achieve objectives outlined in the Constitution. Since 1989, coalition governments at the Centre, proliferating regional and state parties across the country.
- Redistribution of responsibilities through devolution of powers from the Union to the states and from the states to the Panchayats and allocation of financial resources to the state domain is facilitating the attainment of the objectives of the Constitution: unity, social justice, and democracy. All this indicates steps in the direction of cooperative federalism.



How it Works in India?

Indian Constitution has been given the label of "Quasi-Federal" by Prof. K. C. Wheare. We can also call it a mixture of federal principles and unitary principles. However, there is no mention of word 'Federalism' in India Constitution anywhere; it is apparently seen in the functioning of governments in the country. Governance in India is done by following federal principles with a slight tilt toward unitary formulas. India has not adopted a full flesh version of Federalism; rather it has a stronger centre which is created by joining many states. Now, here is the important thing- some people see the stronger tendency of centre as opposite to Federalism, however this is something which is the steam of Federalism. A stronger centre is necessary to bound states in it and to promote a better functioning of the government. Following are some examples of Cooperative Federalism in India-

- Article 1 of the Constitution- The very first article of the Constitution provides that "India shall be a
 Union of States". This very provision provides for the integrity among the Union and the States, as one is
 inseparable to another. This was the first idea of cooperation among states and the centre.
- Seventh Schedule- The Seventh Schedule of the Constitution of India consists of three lists, namely- the
 Union list, the State list and the Concurrent list. These lists contain matters of national importance which
 have been divided between Central and State Government to legislate upon. This is an ideal example of
 coordination among the different levels of government in India.
- o Inter State Council- Article 263 provides for the establishment of an Inter-State Council by the President, if he believes that such council is necessary to discuss and investigate subjects which have a larger public interest. Also, this council is charged with the duty to make suggestions upon any matter for the better implementation or coordination of policies. This council promotes cooperation and coordination among states.
- Zonal Councils- Section 15 of the State Reorganization Act, 1956 provides for the constitution of zonal councils for all the five zones in India. These councils consist of representatives from every state, union territories and the union. These councils are charged with the function of being an advisory body in any matter in which some states or the union has a common interest. They stem cooperation among the states and the union.
- o **National Development Council** This council was developed as a functionary under the Planning Commission. This was set up as an agency to support the implementation of five years plan made by the Planning Commission. This council helped in promoting cooperativeness because it had the Prime Minister, Union Cabinet Ministers, Chief Ministers of all states and representatives of Union Territories as its members. However, it has been dissolved after the constitution of Niti Ayog in 2014.
- o **Niti Ayog** National Institute for Transformation India (NITI AYOG) has replaced the planning commission in 2014. This institution also has the representation of all states, which promotes cooperation.
- o **GST Council-** The Constitution (One Hundred and First Amendment) Act, 2016 introduced the concept of GST & GST Council. This council shall be making recommendations to the Union and the States on the taxes and surcharges levied by the Union, the States or the Local Bodies. Its members represent all the levels of the government. Therefore, this council ideally promotes cooperation among the Centre, States and Local Bodies.
- Taxation Powers- Article 269A (1) provides that, the GST Council and not the Finance Commission has
 the powers to make recommendations about distribution of taxes in inter-state trade. This provision is very
 important in respect of economic cooperation of states because states have a right to vote in the GST Council.
- Similarly, Article 270 provides that the tax collected by the Union under article 246A and under Inter-State
 Trade, shall be distributed among the states too.

Conclusion

- o Together, we Are More Stronger
- Federalism is a concept which needs to be adopted in practice and spirit rather than a letter. To strengthen, some suggestions are as follows:



- To make collaborative federalism work, more institutional reforms are required to eliminate the possibility
 of manipulation by ad hoc political bargaining or by welfare-reducing strategic behavior by the governments
 at different levels.
- In an era where the party system is fragmented along federal lines, the need is still felt to include State parties in federal coalitions, even when technically not necessary. The way alliance partners are treated thus becomes an important element in federal functioning.
- State bills should be taken on a priority list for the assent of the President as the speedy procedure of this will foster more cooperation among state and center.
- There should be proper enforceability of decisions in a matter related to water disputes to avoid long-lasting conflicts among states.

4 UNION GOVERNMENT or CENTRAL GOVERNMENT?

The Tamil Nadu government's decision to shun the usage of the term 'Central government' in its official communications and replace it with 'Union government' is a major step towards regaining the consciousness of our Constitution.

- Seventy-one years since we adopted the Constitution, it is time we regained the original intent of our founding fathers beautifully etched in the parchment as Article 1: "India, that is Bharat, shall be a Union of States".
- o If a student of Indian polity attempts to trace the origin of the term 'Central government', the Constitution will disappoint him, for the Constituent Assembly **did not use the term 'Centre' or 'Central government'** in all of its 395 Articles in 22 Parts and eight Schedules in the original Constitution.
- What we have are the 'Union' and the 'States' with the executive powers of the Union wielded by the President acting on the aid and advice of the Council of Ministers headed by the Prime Minister. Then, why did the courts, the media and even the States refer to the Union government as the 'Centre'?
- Even though we have no reference to the 'Central government' in the Constitution, the General Clauses
 Act, 1897 gives a definition for it. The 'Central government' for all practical purposes is the President
 after the commencement of the Constitution. Therefore, the real question is whether such definition for
 'Central government' is constitutional as the Constitution itself does not approve of centralising power.

Intent of Constituent Assembly

- On December 13, 1946, Jawaharlal Nehru introduced the aims and objects of the Assembly by resolving that India shall be a Union of territories willing to join the "Independent Sovereign Republic". The emphasis was on the consolidation and confluence of various provinces and territories to form a strong united country.
- o Many members of the Constituent Assembly were of the opinion that the principles of the British Cabinet Mission Plan (1946) be adopted, which contemplated a Central government with very limited powers whereas the provinces had substantial autonomy. The Partition and the violence of 1947 in Kashmir forced the Constituent Assembly to revise its approach and it resolved in favour of a strong Centre.
- o The possibility of the secession of States from the Union weighed on the minds of the drafters of the Constitution and ensured that the **Indian Union is "indestructible".**
- o In the Constituent Assembly, B.R Ambedkar, the Chairman of the Drafting Committee, observed that the word 'Union' was advisedly used in order to negative the right of secession of States by emphasising, after all, that "India shall be a Union of States". Ambedkar justified the usage of 'Union of States' saying that the Drafting Committee wanted to make it clear that though India was to be a federation, it was not the result of an agreement and that therefore, no State has the right to secede from it. "The federation is a Union because it is indestructible," Ambedkar said.
- The usage of 'Union of States' by Ambedkar was not approved by all and faced criticisms from Maulana Hasrat Mohani who argued that Ambedkar was changing the very nature of the Constitution. Mohani made a fiery speech in the Assembly on September 18, 1949 where he vehemently contended that the usage of the words 'Union of States' would obscure the word 'Republic'. Mohani went to the extent of saying that



Ambedkar wanted the 'Union' to be "something like the Union proposed by Prince Bismarck in Germany, and after him adopted by Kaiser William and after him by Adolf Hitler". Mohani continued, "He (Ambedkar) wants all the States to come under one rule and that is what we call Notification of the Constitution. I think Dr. Ambedkar is also of that view, and he wants to have that kind of Union. He wants to bring all the units, the provinces and the groups of States, everything under the thumb of the Centre."

- o However, Ambedkar clarified that "the Union is not a league of States, united in a loose relationship; nor are the States the agencies of the Union, deriving powers from it. Both the Union and the States are created by the Constitution, both derive their respective authority from the Constitution. The one is not subordinate to the other in its own field... the authority of one is coordinate with that of the other".
- The sharing of powers between the Union and the States is not restricted to the executive organ of the government. The judiciary is designed in the Constitution to ensure that the Supreme Court, the tallest court in the country, has no superintendence over the High Courts. Though the Supreme Court has appellate jurisdiction not only over High Courts but also over other courts and tribunals they are not declared to be subordinate to it.
- o In fact, the High Courts have wider powers to issue prerogative writs despite having the power of superintendence over the district and subordinate courts. Parliament and Assemblies identify their boundaries and are circumspect to not cross their boundaries when it comes to the subject matter on which laws are made. However, the Union Parliament will prevail if there is a conflict.

Word play

- The members of the Constituent Assembly were very cautious of not using the word 'Centre' or 'Central government' in the Constitution as they intended to keep away the tendency of centralising of powers in one unit.
- o The 'Union government' or the 'Government of India' has a unifying effect as the message sought to be given is that the government is of all.
- Even though the federal nature of the Constitution is its basic feature and cannot be altered, what remains to be seen is whether the actors wielding power intend to protect the federal feature of our Constitution.
- As Nani Palkhivala famously said, "The only satisfactory and lasting solution of the vexed problem is to be found not in the statute-book but in the conscience of men in power".

DELIMITATION

The delimitation commission was set up six months after the Centre abrogated Article 370 and revoked Jammu and Kashmir's special status in August 2019. The reorganisation of Jammu and Kashmir in 2019 requires delimitation process to complete.

What is delimitation and why is it needed?

- Delimitation is the act of redrawing boundaries of Lok Sabha and Assembly seats to represent changes in population. In this process, the number of seats allocated to a state may also change.
- The objective is to provide equal representation for equal population segments, and a fair division of geographical areas, so that no political party has an advantage.
- The Delimitation Commission's orders cannot be questioned before any court.
 How often has delimitation been done?
- Delimitation is done on the **basis of the preceding Census**. The first such exercise in 1950-51 was carried out by the President, with the help of the Election Commission. Following the Delimitation Commission Act in 1952, all such exercises have been conducted by Delimitation Commissions set up in 1952, 1963, 1973 and 2002.
- There was no delimitation after the 1981 and 1991 Censuses. This was a fallout of the provision that the ratio
 between the number of Lok Sabha seats in a state and the population of the state is, as far as practicable, the
 same for all states. Although unintended, this meant that states that took little interest in population control



- could end up with more seats in Parliament, while the southern states that promoted family planning could end up with fewer seats. Amid these concerns, the Constitution was amended in 1976 to suspend delimitation until 2001.
- Another amendment extended the freeze on the number of seats until 2026, by when the country was
 projected to achieve a uniform population growth rate. So, the last delimitation exercise between July 2002
 and March 31, 2008, based on the 2001 Census, only readjusted boundaries of existing Lok Sabha and
 Assembly seats and reworked the number of reserved seats.

How is delimitation done?

- o It is a bureaucratic process. According to **Article 82 of the Constitution, Parliament enacts a Delimitation Act** after Census that is held every 10 years.
- The Union government then constitutes a Delimitation Commission headed by a retired Supreme Court judge.
- The commission examines population data, existing constituencies, the number of seats to be analysed, holds meetings with all the stakeholders and submits its recommendation to the government.
- The draft report of the Delimitation Commission is published in the Gazette of India, the official gazettes of the states concerned and at least two vernacular publications seeking feedback from the general public.

ONORC

The Supreme Court directed all states and Union Territories to implement the One Nation, One Ration Card (ONORC) system, which allows for inter- and intra-state portability, by July 31.

What is One Nation One Ration Card (ONORC)?

- The ONORC scheme is aimed at enabling migrant workers and their family members to buy subsidised ration from any fair price shop anywhere in the country under the **National Food Security Act**, **2013**.
- o For instance, a migrant worker from, say, Basti district of Uttar Pradesh will be able to access PDS benefits in Mumbai, where he or she may have gone in search of work. While the person can buy foodgrains as per his or her entitlement under the NFSA at the place where he or she is based, members of his or her family can still go to their ration dealer back home.
- o To promote this reform in the archaic Public Distribution System (PDS), the government has provided incentives to states. The Centre had even set the implementation of ONORC as a precondition for additional borrowing by states during the Covid-19 pandemic last year. At least 17 states, which implemented the ONORC reform, were allowed to borrow an additional Rs 37,600 crores in 2020-21.

How does ONORC work?

- ONORC is based on technology that involves details of beneficiaries' ration card, Aadhaar number, and electronic Points of Sale (ePoS). The system identifies a beneficiary through biometric authentication on ePoS devices at fair price shops. The system runs with the support of two portals —Integrated Management of Public Distribution System (IM-PDS) (impds.nic.in) and Annavitran (annavitran.nic.in), which host all the relevant data.
- When a ration card holder goes to a fair price shop, he or she identifies himself or herself through biometric authentication on ePoS, which is matched real time with details on the Annavitaran portal. Once the ration card details are verified, the dealer hands out the beneficiary's entitlements. While the Annavitaran portal maintains a record of intra-state transactions inter-district and intra-district the IM-PDS portal records the inter-state transactions.

How many people will it benefit?

Under the National Food Security Act, 2013, about 81 crore people are entitled to buy subsidised foodgrains
 rice at Rs 3/kg, wheat at Rs 2/kg, and coarse grains at Re 1/kg – from designated fair price shops.



As on 28 June 2021, there are about 5.46 lakh fair price shops and 23.63 crore ration card holders across
the country. Each NFSA ration card holder is assigned to a fair price shop near the place where his ration
card is registered.

What factors led to the launch of ONORC?

- Earlier, NFSA beneficiaries were not able to access their PDS benefits outside the jurisdiction of the specific fair price shop to which they have been assigned. The government envisioned the ONORC to give them access to benefits from any fair price shop. Full coverage will be possible after 100% Aadhaar seeding of ration cards has been achieved, and all fair price shops are covered by ePoS devices (there are currently 4.74 lakh devices installed across the country).
- ONORC was launched in August, 2019. Work on ration card portability, however, had begun in April 2018
 itself, with the launch of the IM-PDS. The idea was to reform the PDS, which has been historically marred
 by inefficiency and leakages.
- o ONORC was initially launched as an inter-state pilot. However, when the Covid-19 pandemic forced thousands of migrant workers to return to their villages last year, a need was felt to expedite the rollout.
- As part of its Covid economic relief package, the government announced the national rollout of ONORC in all states and Union Territories by March 2021.

What has been the coverage so far?

- o Till date, 32 states and Union Territories have joined the ONORC, covering about 69 crore NFSA beneficiaries. Four states are yet to join the scheme Assam, Chhattisgarh, Delhi and West Bengal.
- o According to the Union Ministry of Consumer Affairs, Food and Public Distribution, about 1.35 crore portability transactions every month are being recorded under ONORC on an average.
- A total of more than 27.83 Crore portability transactions (including intra-state transactions) have taken
 place all across these States/UTs since the inception of ONORC in August 2019, out of which almost 19.8
 Crore portability transactions have been recorded during the COVID-19 period of April 2020 to May 2021
 itself according to the Ministry.
- While inter-state ration card portability is available in 32 states, the number of such transactions is much lower than that of intra-district and inter-district transactions.

Why have these four states not implemented it yet?

There are various reasons. For instance, Delhi is yet to start the use of ePoS in fair price shops, which is a
prerequisite for the implementation of ONORC. In the case of West Bengal, the state government has
demanded that the non-NFSA ration card holders — ration cards issued by the state government — should
also be covered under the ONORC.

4 SPEAKER AND DEPUTY SPEAKER

- o The Constitution specifies offices like those of the President, Vice President, Chief Justice of India, and Comptroller and Auditor General of India, as well as Speakers and Deputy Speakers.
- o **Article 93 for Lok Sabha** and **Article 178 for state Assemblies** state that these Houses "shall, as soon as may be", choose two of its members to be Speaker and Deputy Speaker.
- The Constitution **neither sets a time limit nor specifies the process** for these elections. It leaves it to the legislatures to decide how to hold these elections.
- In Lok Sabha and state legislatures, the President/Governor sets a date for the election of the Speaker, and it is the Speaker who decides the date for the election of the Deputy Speaker. The legislators of the respective Houses vote to elect one among themselves to these offices.
- Haryana and Uttar Pradesh specify a time-frame for holding the election to the Speaker and Deputy Speaker's offices. In Haryana, the election of the Speaker has to take place as soon as possible after the election. And then the Deputy Speaker is to be elected within seven more days. The rules also specify that if



- a vacancy in these offices happens subsequently, then the election for these should occur within seven days of the legislature's next session.
- Uttar Pradesh has a 15-day limit for an election to the Speaker's post if it falls vacant during the term of the Assembly. In the case of the Deputy Speaker, the date for the first election is to be decided by the Speaker, and 30 days is given for filling subsequent vacancies.
- The Constitution provides that the office of the Speaker should never be empty. So, he continues
 in office until the beginning of the next House, except in the event of death or resignation.

The roles of the Speaker, Deputy Speaker

- o According to the book Practice and Procedure of Parliament, published by the Lok Sabha Secretariat, the Speaker is "the principal spokesman of the House, he represents its collective voice and is its sole representative to the outside world". The Speaker presides over the House proceedings and joint sittings of the two Houses of Parliament. It is the Speaker's decision that determines whether a Bill is a Money Bill and therefore outside of the purview of the other House.
- The Deputy Speaker is independent of the Speaker, not subordinate to him, as both are elected from among the members of the House.
- Since Independence, the Lok Sabha Deputy Speaker's position has grown in importance. In addition to presiding over the House in the absence of the Speaker, the **Deputy Speaker chaired committees both inside and outside of Parliament**. For example, M Thambidurai, the Deputy Speaker of the previous Lok Sabha, headed the Lok Sabha Committee on Private Members Bills and Resolutions, and the committee that looked at the MP Local Area Development Scheme. He also chaired several committees formed under the aegis of the conference of presiding officers of legislative bodies in India.
- o The Deputy Speaker ensures the continuity of the Speakers office by acting as the Speaker when the office becomes vacant (by death, as in the case of the first Lok Sabha Speaker G V Mavalankar in 1956, and G M C Balayogi in 2002, or because of resignation by Speaker N Sanjiva Reddy in 1977 for fighting the Presidential election.). In addition, when a resolution for removal of the Speaker (as in 1987 against Lok Sabha Speaker Balram Jakhar) is up for discussion, the Constitution specifies that the Deputy Speaker presides over the proceedings of the House.

Ruling party or Opposition

- Usually, the Speaker comes from the ruling party. In the case of the Deputy Speaker of Lok Sabha, the position has varied over the years. Until the fourth Lok Sabha, the Congress held both the Speaker and Deputy Speakers positions. In the fifth Lok Sabha, whose term was extended due to the Emergency, an independent member, Shri G G Swell, was elected the Deputy Speaker.
- o The **tradition for the post of the Deputy Speaker going to the Opposition party** started during the term of Prime Minister Morarji Desai's government. The two subsequent Lok Sabhas had members from the DMK (G Lakshmanan) and AIADMK (Thambidurai, in his first stint in this position) becoming Deputy Speaker. During the governments of PMs V P Singh and Chandra Sekhar, Shivraj Patil of the Congress was the Deputy Speaker.
- The first time the Deputy Speaker's position went to the BJP was during the term of Prime Minister P V Narasimha Rao. In the 13th Lok Sabha, during the tenure of Prime Minister Atal Bihari Vajpayee, Congress MP P M Sayeed became the Deputy Speaker. In Prime Minister's Manmohan Singh's two terms, the Deputy Speaker's position went first to the Shiromani Akali Dal and then to the BJP.

*** RECUSAL IN JUDICIARY**

Recently, two Supreme Court judges — Justice Indira Banerjee and Justice Aniruddha Bose — have recused themselves from hearing cases relating to West Bengal. On June 21, Delhi High Court judge Anup Bhambhani recused himself from hearing a plea by digital media houses challenging the validity of the IT rules regulating intermediaries.



Why does a judge recuse?

- When there is a conflict of interest, a judge can withdraw from hearing a case to prevent creating a perception
 that she carried a bias while deciding the case. The conflict of interest can be in many ways from holding
 shares in a company that is a litigant to having a prior or personal association with a party involved in the
 case.
- o The practice stems from the cardinal principle of due process of law that nobody can be a judge in her own case. Any interest or conflict of interest would be a ground to withdraw from a case since a judge has a duty to act fair. Another instance for recusal is when an appeal is filed in the Supreme Court against a judgement of a High Court that may have been delivered by the SC judge when she was in the HC.

What is the process for recusal?

- The decision to recuse generally comes from the judge herself as it rests on the conscience and discretion of the judge to disclose any potential conflict of interest. In some circumstances, lawyers or parties in the case bring it up before the judge. If a judge recuses, the case is listed before the Chief Justice for allotment to a fresh Bench.
- o There are no formal rules governing recusals, although several Supreme Court judgments have dealt with the issue.
- o In **Ranjit Thakur v Union of India (1987)**, the Supreme Court held that the tests of the likelihood of bias is the reasonableness of the apprehension in the mind of the party. "The proper approach for the Judge is not to look at his own mind and ask himself, however honestly, "Am I biased?" but to look at the mind of the party before him," the court had held. "A Judge shall not hear and decide a matter in a company in which he holds shares... unless he has disclosed his interest and no objection to his hearing and deciding the matter is raised," states the 1999 charter 'Restatement of Values in Judicial Life', a code of ethics adopted by the Supreme Court.

Can a judge refuse to recuse?

- Once a request is made for recusal, the decision to recuse or not rests with the judge. While there are some
 instances where judges have recused even if they do not see a conflict but only because such an apprehension
 was cast, there have also been several cases where judges have refused to withdraw from a case.
- o For instance, in 2019, Justice Arun Mishra had controversially refused to recuse himself from a Constitution Bench set up to re-examine a judgement he had delivered previously, despite several requests from the parties. Justice Mishra had reasoned that the request for recusal was really an excuse for "forum shopping" and agreeing could compromise the independence of the judiciary.
- o In the Ayodhya-Ramjanmabhoomi case, Justice U U Lalit recused himself from the Constitution Bench after parties brought to his attention that he had appeared as a lawyer in a criminal case relating to the case.

Do judges record reasons for recusal?

- o Since there are no formal rules governing the process, it is often left to individual judges to record reasons for recusal. Some judges disclose the reasons in open court; in some cases, the reasons are apparent.
- The two Supreme Court judges who have recused from cases relating to West Bengal had been Calcutta High Court judges. The cases they have recused from relate to post-poll violence in the state and the Narada scam, which have become political battles between the state and Centre in court.
- o In a landmark verdict in 2015 holding that the National Judicial Appointments Commission as unconstitutional, Justice Kurian Joseph and Justice Madan Lokur had referred to the need for judges to give reasons for recusal to build transparency and help frame rules to govern the process.



ECONOMY

(Global and Indian)

4 GLOBAL MINIMUM TAX

Finance Ministers from the Group of Seven (G7) rich nations reached a landmark accord setting a global minimum corporate tax rate, an agreement that could form the basis of a worldwide deal.

The deal aims to end what U.S. Treasury Secretary Janet Yellen has called a "30-year race to the bottom on corporate tax rates" as countries compete to lure multinationals.

What is the need?

- Major economies are aiming to discourage multinationals from shifting profits and tax revenues to low-tax countries regardless of where their sales are made.
- Increasingly, income from intangible sources such as drug patents, software and royalties on intellectual property has migrated to these jurisdictions, allowing companies to avoid paying higher taxes in their traditional home countries.
- With its proposal for a minimum 15% tax rate, the Biden administration hopes to reduce such tax base erosion without putting American firms at a financial disadvantage, allowing competition on innovation, infrastructure and other attributes.

Where are the talks at?

- The **G7** talks is for broadening existing efforts.
- The Organization for Economic Cooperation and Development has been coordinating tax negotiations among 140 countries for years on rules for taxing cross-border digital services and curbing tax base erosion, including a global corporate minimum tax.
- The OECD and G20 countries aim to reach consensus on both by mid-year, but the talks on a global
 corporate minimum are technically simpler and less contentious. If a broad consensus is reached, it will be
 extremely hard for any low-tax country to try and block an accord.
- The minimum is expected to make up the bulk of the \$50 billion-\$80 billion in extra tax that the OECD estimates firms will end up paying globally under deals on both fronts.

How would a global minimum tax work?

- o The global minimum tax rate **would apply to overseas profits**. Governments could still set whatever local corporate tax rate they want, but if companies pay lower rates in a particular country, their home governments could "top-up" their taxes to the minimum rate, eliminating the advantage of shifting profits.
- The OECD said that governments broadly agreed on the basic design of the minimum tax but not the rate.
 Other items still to be negotiated include whether investment funds and real estate investment trusts should be covered, when to apply the new rate and ensuring it is compatible with U.S. tax reforms aimed at deterring erosion.

What about that minimum rate?

- Talks are focusing around the U.S. proposal of a minimum global corporation tax rate of 15% above the level in countries such as Ireland but below the lowest G7 level.
- Any final agreement could have major repercussions for low-tax countries and tax havens.
- The Irish economy has boomed with the influx of billions of dollars in investment from multinationals.
 Dublin, which has resisted EU attempts to harmonise its tax rules, is unlikely to accept a higher minimum rate without a fight.



o However, the battle for low-tax countries is less likely to be about scuppering the overall talks and more about building support for a minimum rate as close as possible to its 12.5% or seeking certain exemptions.

FDI IN INDIA

- Foreign direct investment (FDI) is when a company takes controlling ownership in a business
 entity in another country. With FDI, foreign companies are directly involved with day-to-day operations
 in the other country. This means they aren't just bringing money with them, but also knowledge, skills
 and technology.
- Generally, FDI takes place when an investor establishes foreign business operations or acquires foreign business assets, including establishing ownership or controlling interest in a foreign company.
- o FDI is an important monetary source for India's economic development. Economic liberalisation started in India in the wake of the 1991 crisis and since then, FDI has steadily increased in the country.

Routes through which India gets FDI

- Automatic route: The non-resident or Indian company does not require prior nod of the RBI or government of India for FDI.
- Govt route: The government's approval is mandatory. The company will have to file an application through Foreign Investment Facilitation Portal, which facilitates single-window clearance. The application is then forwarded to the respective ministry, which will approve/reject the application in consultation with the Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce. DPIIT will issue the Standard Operating Procedure (SOP) for processing of applications under the existing FDI policy.

Sectors which come under the '100% Automatic Route' category are:

Agriculture & Animal Husbandry, Air-Transport Services (non-scheduled and other services under civil aviation sector), Airports (Greenfield + Brownfield), Asset Reconstruction Companies, Auto-components, Automobiles, Biotechnology (Greenfield), Broadcast Content Services (Up-linking & down-linking of TV channels, Broadcasting Carriage Services, Capital Goods, Cash & Carry Wholesale Trading (including sourcing from MSEs), Chemicals, Coal & Lignite, Construction Development, Construction of Hospitals, Credit Information Companies, Duty Free Shops, E-commerce Activities, Electronic Systems, Food Processing, Gems & Jewellery, Healthcare, Industrial Parks, IT & BPM, Leather, Manufacturing, Mining & Exploration of metals & non-metal ores, Other Financial Services, Services under Civil Aviation Services such as Maintenance & Repair Organizations, Petroleum & Natural gas, Pharmaceuticals, Plantation sector, Ports & Shipping, Railway Infrastructure, Renewable Energy, Roads & Highways, Single Brand Retail Trading, Textiles & Garments, Thermal Power, Tourism & Hospitality and White Label ATM Operations.

Government route

Sectors which come under the 'up to 100% Government Route' category are

- o Banking & Public sector: 20%
- o Broadcasting Content Services: 49%
- o Core Investment Company: 100%
- o Food Products Retail Trading: 100%
- Mining & Minerals separations of titanium bearing minerals and ores: 100%
- o Multi-Brand Retail Trading: 51%
- o Print Media (publications/ printing of scientific and technical magazines/ specialty journals/ periodicals and facsimile edition of foreign newspapers): 100%
- o Print Media (publishing of newspaper, periodicals and Indian editions of foreign magazines dealing with news & current affairs): 26%
- Satellite (Establishment and operations): 100%



FDI prohibition: There are a few industries where FDI is strictly prohibited under any route. These industries are

- o Atomic Energy Generation
- Any Gambling or Betting businesses
- o Lotteries (online, private, government, etc)
- o Investment in Chit Funds
- Nidhi Company
- o Agricultural or Plantation Activities (although there are many exceptions like horticulture, fisheries, tea plantations, Pisciculture, animal husbandry, etc)
- Housing and Real Estate (except townships, commercial projects, etc.)
- Cigars, Cigarettes, or any related tobacco industry

4 FDI INFLOW INCREASES

Total foreign direct investment (FDI) inflow in 2020-21 is \$81.7 billion, up 10% over the previous year, reported a recent Ministry of Commerce and Industry. The gross inflow consists of (i) "direct investment to India" and (ii) "repatriation/disinvestment".

What is repatriation? Why is it so significant?

FDI inflow increasingly consists of private equity funds, which are usually disinvested after 3-5 years to book profits (per its business model). In principle, private equity funds do not make long-term greenfield investment.

What then accounts for the impressive headline number of 10% rise in gross inflow?

- It is almost entirely on account of "Net Portfolio Investment", shooting up from \$1.4 billion in 2019-20 to \$36.8 billion in the next year. Further, within the net portfolio investment, foreign institutional investment (FIIs) has boomed by an astounding 6,800% to \$38 billion in 2020-21, from a mere half a billion dollars in the previous
- So, the mystery of the surge in gross FDI inflows is solved. It is entirely on account of net foreign portfolio investment.

What is portfolio investment, and how is it included in FDI inflow?

- o FDI inflow, in theory, is supposed to bring in additional capital to augment potential output (taking managerial control/stake).
- In contrast, foreign portfolio investment, as the name suggests, is short-term investment in domestic capital (equity and debt) markets to realise better

financial returns (that is, higher dividend/interest rate plus capital gains).

But the conceptual distinctions have blurred in official reporting, showing an outsized role of FDI and its growth in India.

If the deluge of FII inflow did little to augment the economy's potential output, what then did it do?

It added a lot of froth to the stock prices. When GDP has contracted by 7.3% (as per the official estimates) in 2020-21 on account of the pandemic and the economic lockdown, the BSE Sensex nearly doubled from about



12,993

1.403

11,299

36.843

2526.0

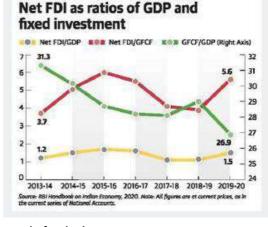


FDI by India (Outward FDI)

Net Portfolio investment

6

7.1





26,000 points on March 23, 2020 to over 50,000 on March 31, 2021. BSE's price-earnings (P-E) multiple — defined as share price relative to earnings per share — is among the world's highest, close behind S&P 500 in the U.S.

Modest contribution

- o Thus the surge in total FDI inflow during the pandemic year is entirely **explained by booming short-term FIIs** in the capital market and **not adding to fixed investment and employment creation**.
- For years now, the government has showcased the rise in gross FDI inflows as a badge of the success of its
 economic policies to counter the widespread criticisms of output and investment slowdown and rising
 unemployment rates.
- o To sum up, the Commerce Ministry press release claims an unprecedented surge in gross foreign capital inflow of \$81.7 billion in 2020-21, rising 10% over the previous year. The rapid influx is evidence of the success of the economic policies during the pandemic, the government claims. Is it so? Probably not. Unprecedented short-term foreign portfolio investments are entirely responsible for the surge. And within the portfolio investment, FIIs shot up to \$38 billion in 2020-21, from half a billion-dollar the previous year. The flood of FIIs has boosted stock prices and financial returns. These inflows did little to augment fixed investment and output growth.

EXPORT SURGE

India's exports grew by 67.39 per cent to USD 32.21 billion in May driven by healthy growth in sectors such as engineering, petroleum products and gems and jewellery, even as trade deficit widened to USD 6.32 billion, according to government data.

- o Imports in May rose by 68.54 per cent to USD 38.53 billion, from USD 22.86 billion in May 2020. In May 2019, imports stood at USD 46.68 billion.
- India is thus a net importer in May 2021 with a trade deficit of USD 6.32 billion, an increase of 74.69 per cent over trade deficit USD 3.62 billion in May 2020 and reduction by 62.49 per cent over trade deficit USD 16.84 billion in May 2019, the ministry said.

Trade Deficit

- o A trade deficit occurs when a country does not produce everything it needs and borrows from foreign states to pay for the imports. That's called the **current account deficit**.
- A trade deficit also occurs when companies manufacture goods in other countries. The raw materials for manufacturing that are shipped overseas for factory production count as an export. The finished manufactured goods are counted as imports when they're shipped back to the country. The imports are subtracted from the country's gross domestic product even though the earnings may benefit the company's stock price, and the taxes may increase the country's revenue stream.
- Initially, a trade deficit is not necessarily a bad thing. It can raise a country's standard of living because residents can access a wider variety of goods and services for a more competitive price. It can also reduce the threat of inflation since it creates lower prices.
- Over time, a trade deficit can cause more outsourcing of jobs to other countries. As a country imports more
 goods than it buys domestically, then the home country may create fewer jobs in certain industries. At the
 same time, foreign companies will likely hire new workers to keep up with the demand for their exports.

The Bottom Line

- A nation with a trade deficit spends more on imports than it makes on its exports. In the short run, a negative balance of trade curbs inflation. But over time, a substantial trade deficit weakens domestic industries and decreases job opportunities.
- A huge reliance on imports also leaves a country vulnerable to economic downturns. Currency devaluations, for example, make imports more costly. This situation stimulates inflation.



SERVICES PMI SHRINKS

After Manufacturing, services too dipped in June as Purchasing Managers' Index (PMI) registered further contraction to 41.2 from 46.4 in May. The worst thing is job losses increased.

PMI data are released monthly by IHS Markit, in advance of comparable official economic data.

Services firms endured further losses of new business as the emergence of the pandemic and the reintroduction of containment measures restricted demand.

Services' share in GDP

- The second wave of pandemic coupled with local lockdown pushed manufacturing activities in reverse gear as PMI for June dipped to 48.1. Services has maximum share in India's Gross Domestic Product (GDP) with over 57 per cent contribution. Manufacturing has around 17 per cent share in GDP. Both the sectors are facing job loss. This means almost two third of the economy was not in good shape during April-June quarter. This is expected to affect GDP growth rate during April-June quarter, for which official data to be out in August.
- The Purchasing Managers' Index (PMI) is an index of the prevailing direction of economic trends in the manufacturing and service sectors. It consists of a diffusion index that summarizes whether market conditions, as viewed by purchasing managers, are expanding, staying the same, or contracting.
- o The **purpose of the PMI** is to provide information about current and future business conditions to company decision makers, analysts, and investors.
- o Both PMIs are prepared by compiling responses from questionnaires sent to a panel of around 400 companies each from manufacturing and services sector. A diffusion index is calculated for each survey variable. The indices vary between 0 and 100, with a reading above 50 indicating an overall increase compared to the previous month, and below 50 an overall decrease.
- Hope: With India expanding its vaccine options and the government announcing ambitious plans to immunise the entire adult population by the end of the year, it is hoped that the pandemic can be brought under control and a sustainable economic recovery can begin.

4 G-SECs

The Reserve Bank will conduct open market purchase of government securities of ₹1.2 lakh crore under the G-sec Acquisition Programme (G-SAP 2.0) in Q2:2021-22 to support the market.

What is a Government Security (G-Sec)?

- o A Government Security (G-Sec) is a **tradeable instrument issued by the Central Government** or the State Governments. It **acknowledges the Government's debt obligation**.
- Such securities are **short term** (usually called treasury bills, with original maturities of less than one year)
 or **long term** (usually called Government bonds or dated securities with original maturity of one year or
 more).
- In India, the Central Government issues both, treasury bills and bonds or dated securities while the State Governments issue only bonds or dated securities, which are called the State Development Loans (SDLs).
- o G-Secs carry practically no risk of default and, hence, are called **risk-free gilt-edged** instruments.

Treasury Bills (T-bills)

- Treasury bills or T-bills, which are money market instruments, are short term debt instruments issued
 by the Government of India and are presently issued in three tenors, namely, 91 day, 182 day and 364
 day.
- o Treasury bills are **zero coupon securities** and **pay no interest**. Instead, they are issued at a discount and redeemed at the face value at maturity. For example, a 91 day Treasury bill of ₹100/- (face value) may



be issued at say $\stackrel{?}{_{\sim}}$ 98.20, that is, at a discount of say, $\stackrel{?}{_{\sim}}$ 1.80 and would be redeemed at the face value of $\stackrel{?}{_{\sim}}$ 100/-

o The return to the investors is the difference between the maturity value or the face value (that is ₹100) and the issue price.

Cash Management Bills (CMBs)

- In 2010, Government of India, in consultation with RBI introduced a new short-term instrument, known as Cash Management Bills (CMBs), to meet the temporary mismatches in the cash flow of the Government of India.
- The CMBs have the generic character of T-bills but are issued for maturities less than 91 days.

Dated G-Secs

- o Dated G-Secs are securities which carry a **fixed or floating coupon** (interest rate) which is paid on the face value, on half-yearly basis.
- o Generally, the tenor of dated securities ranges from 5 years to 40 years.

Advantages of G-Secs

- o Besides providing a return in the form of coupons (interest), G-Secs offer the maximum safety as they carry the Sovereign's commitment for payment of interest and repayment of principal.
- They can be held in book entry, i.e., **dematerialized/ scripless form**, thus, obviating the need for safekeeping. They can also be held in physical form.
- o G-Secs are available in a **wide range of maturities** from 91 days to as long as 40 years to suit the duration of varied liability structure of various institutions.
- o G-Secs can be sold easily in the secondary market to meet cash requirements.
- o G-Secs can also be used as collateral to borrow funds in the repo market.
- Securities such as State Development Loans (SDLs) and Special Securities (Oil bonds, UDAY bonds etc) provide attractive yields.
- The settlement system for trading in G-Secs, which is based on **Delivery versus Payment (DvP)**, is a very simple, safe and efficient system of settlement. The DvP mechanism ensures transfer of securities by the seller of securities simultaneously with transfer of funds from the buyer of the securities, thereby mitigating the settlement risk.
- o G-Sec prices are readily available due to a liquid and active secondary market and a transparent price dissemination mechanism.
- o Besides banks, insurance companies and other large investors, smaller investors like Co-operative banks, Regional Rural Banks, Provident Funds are also required to statutory hold G-Secs.

LABOUR CODES

The Indian government's decision to consolidate 29 Central labour laws into 4 labour codes has been welcomed by several industry representatives, given that the move signalled a much-needed step towards reduced complexity and a simpler labour law regime which could benefit both employers and employees. The govt. is keen to implement.

Introduction to the Labour Codes

o The **4 labour codes** - Code on Wages 2019, Code on Social Security 2020, Industrial Relations Code 2020 and Occupational Safety, Health and Working Conditions Code 2020 – received the Presidential assent between 2019 and 2020. However, barring the provisions relating to Central Advisory Board on minimum wages and identification of workers for social security benefits through Aadhaar, the Central Government is yet to bring the labour codes into effect.



- o The implementation process is delayed as states are yet to finalise their rules under these codes, which rules would assume relevance for many employers in the private sector.
- Below are some of the most noteworthy changes in the proposed codes when compared to the extant regime.
- Uniform definition of "wages" introduced; maintenance of "wages" at least at 50% level in the overall remuneration for computation of payments and benefits;
- Application of the chapter on payment of wages to all establishments and all employees irrespective of their wages;
- Compounding of certain offences (with certain conditions);
- Introduction of "fixed term employment" with pro-rated statutory benefits;
- Introduction of a limitation period for determination of the amounts due and initiation of inquiries of 5 years from date of alleged amount due (EPF, ESI);
- Negotiating union and negotiating council for negotiation of such matters with the employer as may be prescribed;
- Application of standing orders to all establishments with 300 or more workers;
- Contribution towards worker reskilling fund in case of retrenchment of a worker;
- Introduction of the concept of "core activity of establishment" as regards engagement of contract labour;
- Coverage of directly recruited employees from other states within the ambit of inter-state migrant workers.

Wages and Remuneration: Clarity Required

- While aspects such as recognition of "fixed term employees" and setting up of a worker reskilling fund were praised, the potential need for restructuring of the remuneration in view of the new definition of "wages" was called unnecessary.
- The consensus seemed to be that greater clarity was required on matters such as distinction between workers and employees, payment of overtime (especially in a post-COVID remote working scenario) and the relationship between organisations and the gig economy, wherein workers seem to have merely been recognised for social security schemes but not as persons with whom the concerned organisation has an employer-employee relationship.
- o Industry representatives unanimously agreed that although things like overtime payments and gratuity will drive up costs, recognising and safeguarding the rights of employees, even those of a "fixed term" nature, is a step in the right direction. However, they maintained that more challenges may surface once the implementation process begins. Participants agreed that the two key parameters cost to employers and take-home salary for employees must remain untouched and not be negatively impacted in this process in order to ensure a smooth transition.

Other Challenges

- o No detailed provision to deal with **employers' obligations** in pandemic-specific situations;
- Concerns that merely increasing the threshold for application of permission requirement for retrenchment to 300 workers is not enough of a change;
- Concerns regarding recognition and dealing with unions in sectors such as IT which have not had much experience on this front;
- No specific provisions for social security of employees in small startups, MSMEs;
- No specific steps to help increase job opportunities.

The Silver Lining...

Despite all the above-mentioned concerns and challenges foreseen, industry representatives who participated in the roundtable agreed that things will likely be much clearer 6-8 months after the rollout of these codes, once the on-ground realities are acknowledged and any issues addressed.



HIKE IN MSP

The Central government has hiked the minimum support price (MSP) for common paddy to ₹1,940 a quintal for the coming kharif season, close to 4% higher than last year's price of ₹1,868.

The decision was taken by the Cabinet Committee on Economic Affairs.

o In a bid to **encourage crop diversification**, there were slightly higher increases in the MSP for pulses, oilseeds and coarse cereals. Both tur and urad dal saw the MSP rise by ₹300, a 5% increase to ₹6,300 a quintal, while the highest absolute increase was for sesamum, whose MSP rose 6.6% to ₹7,307. Groundnut and nigerseed saw an increase of ₹275 and ₹235 respectively. However, maize saw a minimal hike of just ₹20 to ₹1,870 a quintal.

MSP

- The MSP is the rate at which the government purchases crops from farmers, and is based on a calculation of at least one-and-a-half times the cost of production incurred by the farmers.
- This year, the MSP for bajra was set at 85% above the cost of production, while the MSP for urad and tur will
 ensure 60% returns. The MSPs for the remaining crops were mostly set around the stipulated 50% above the
 cost of production.

CROPS COVERED UNDER MSP

K	HARIF CRO	OPS	(14) R	ABI CROPS (7)	C	CALENDAR YEAR
					C	CROPS (4)
1.	Paddy		1.	Wheat		N 2
2.	Jawar		2.	Barley	1.	Copra
3.	Bajara		3.	Gram	2.	De-husked Coconut
4.	Ragi		4.	Masur	3.	Jute
5.	Maize		5.	Rapeseed& Mustard	4.	Sugar Cane (FRP)
ś.	Arhar		6.	Safflower		
7.	Moong		7.	Torai		
3.	Urad					
).	Cotton		CACP recor	mmends MSP for 22 cre	ops befor	re the sowing period each
0.	Ground Nuts		vear			- 1
1.	Sunflower			d for Toris based on MS	P for D	apeseeds and Mustard and
2.	Soyabean	8				
3.	Sesamum		for De-nusi	ked Coconut on the Basi	IS 01 IVIS.	r of Copra.
14.	Nigerseed		Fair and Re	munerative prices for S	ugar is a	ilso declared

- o **CACP recommends MSP for twenty two (22) crops and Fair & Remunerative Price (FRP) for sugarcane**. Apart from Sugarcane for which FRP is declared by the Department of Food &Public Distribution, twenty two crops covered under MSP are Paddy, Jowar, Bajra, Maize, Ragi, Arhar, Moong, Urad, Groundnut-in-shell, Soyabean, Sunflower, Seasamum, Nigerseed, Cotton, Wheat, Barley, Gram, Masur (lentil), Rapeseed/Mustardseed, Safflower, Jute and Copra.
- In addition, MSP for Toria and De-Husked coconut is fixed by the Department on the basis of MSP's
 of Rapeseed/Mustardseed and Copra respectively.
- Besides, announcement of MSP, the Government also organizes procurement operations of these agricultural commodities through various public and cooperative agencies such as Food Corporation of India (FCI), Cotton Corporation of India (CCI), Jute Corporation of India (JCI), Central Warehousing Corporation (CWC), National Agricultural Cooperative Marketing Federation of India Ltd. (NAFED), National Consumer Cooperative Federation of India Ltd. (NCCF), and Small Farmers Agro Consortium (SFAC).
- o Besides, State Governments also appoint state agencies to undertake PSS operations.



4 HEADLINE INFLATION AND CORE INFLATION

- **Headline inflation** refers to the change in value of all goods in the basket.
- Core inflation excludes food and fuel items from headline inflation.
- Since the prices of fuel and food items tend to fluctuate and create 'noise' in inflation computation, core inflation is less volatile than headline inflation.
- In a developed economy, food & fuel account for 10-15% of the household consumption basket and in developing economies it forms 30-40% of the basket.

Headline Inflation



Headline inflation represents the rise of price in the economy of various products in th market like fruits, vegetables, gas, petroleum, etc.



o Headline inflation is more relevant for developing economies than developed economies.

4 HISTORY OF DIRECT TAX IN INDIA

- It is a matter of general belief that taxes on income and wealth are of recent origin but there is enough
 evidence to show that taxes on income in some form or the other were levied even in primitive and ancient
 communities.
- The origin of the word "Tax" is from "Taxation" which means an estimate. These were levied either
 on the sale and purchase of merchandise or livestock and were collected in a haphazard manner from time
 to time.
- Nearly 2000 years ago, there went out a decree from Ceaser Augustus that all the world should be taxed. In Greece, Germany and Roman Empires, taxes were also levied sometime on the basis of turnover and sometimes on occupations. For many centuries, revenue from taxes went to the Monarch. In Northern England, taxes were levied on land and on moveable property such as the Saladin title in 1188.
- Later on, these were supplemented by introduction of poll taxes, and indirect taxes known as "Ancient Customs" which were duties on wool, leather and hides. These levies and taxes in various forms and on various commodities and professions were imposed to meet the needs of the Governments to meet their military and civil expenditure and not only to ensure safety to the subjects but also to meet the common needs of the citizens like maintenance of roads, administration of justice and such other functions of the State.
- o **In India, the** system of direct taxation as it is known today, has been in force in one form or another even from ancient times. There are references both in **Manu Smriti and Arthasastra** to a variety of tax measures. Manu, the ancient sage and law-giver stated that the king could levy taxes, according to Sastras. The sage advised that taxes should be related to the income and expenditure of the subject. He, however, cautioned the king against excessive taxation and stated that both extremes should be avoided namely either complete absence of taxes or exorbitant taxation. According to him, the king should arrange the collection of taxes in such a manner that the subjects did not feel the pinch of paying taxes. He laid down that traders and artisans should pay 1/5th of their profits in silver and gold, while the agriculturists were to pay 1/6th, 1/8th and 1/10th of their produce depending upon their circumstances. The detailed analysis given by Manu on the subject clearly shows the existence of a well-planned taxation system, even in ancient times. Not only this, taxes were also levied on various classes of people like actors, dancers, singers and even dancing girls. Taxes were paid in the shape of gold-coins, cattle, grains, raw-materials and also by rendering personal service.
- The learned author K.B.Sarkar commends the system of taxation in ancient India in his book "Public Finance in Ancient India" as follows:- "Most of the taxes of Ancient India were highly productive. The admixture of direct taxes with indirect Taxes secured elasticity in the tax system, although more emphasis was laid on direct tax. The tax-structure was a broad based one and covered most people within its fold. The taxes were varied and the large variety of taxes reflected the life of a large and composit population".



- However, it is **Kautilya's Arthasastra**, which deals with the system of taxation in a real elaborate and planned manner. This well-known treatise on state crafts written sometime in 300 B.C., when the Mauryan Empire was as its glorious upwards move, is truly amazing, for its deep study of the civilisation of that time and the suggestions given which should guide a king in running the State in a most efficient and fruitful manner. A major portion of Arthasastra is devoted by Kautilya to financial matters including **financial administration**.
- According to famous statesman, the Mauryan system, so far as it applied to agriculture, was a sort of state landlordism and the collection of land revenue formed an important source of revenue to the State. The State not only collected a part of the agricultural produce which was normally one sixth but also levied water rates, octroi duties, tolls and customs duties. Taxes were also collected on forest produce as well as from mining of metals etc. Salt tax was an important source of revenue and it was collected at the place of its extraction.
- o Kautilya described in detail, the trade and commerce carried on with foreign countries and the active interest of the Mauryan Empire to promote such trade. Goods were imported from China, Ceylon and other countries and levy known as a vartanam was collected on all foreign commodities imported in the country. There was another levy called Dvarodaya which was paid by the concerned businessman for the import of foreign goods. In addition, ferry fees of all kinds were levied to augment the tax collection.
- Collection of Income-tax was well organised and it constituted a major part of the revenue of the State. A big portion was collected in the form of income-tax from dancers, musicians, actors and dancing girls, etc. This taxation was not progressive but **proportional to the fluctuating income**. An excess Profits Tax was also collected. General Sales-tax was also levied on sales and the sale and the purchase of buildings was also subject to tax. Even gambling operations were centralised and tax was collected on these operations. A tax called **yatravetana** was levied on pilgrims. Though revenues were collected from all possible sources, the underlying philosophy was not to exploit or over-tax people but to provide them as well as to the State and the King, immunity from external and internal danger. The revenues collected in this manner were spent on social services such as laying of roads, setting up of educational institutions, setting up of new villages and such other activities beneficial to the community.
- The reason why Kautilya gave so much importance to public finance and the taxation system in the Arthasastra is not far to seek. According to him, the power of the government depended upon the strength of its treasury. He states "From the treasury, comes the power of the government, and the Earth whose ornament is the treasury, is acquired by means of the Treasury and Army". However, he regarded revenue and taxes as the earning of the sovereign for the services which were to be rendered by him to the people and to afford them protection and to maintain law and order.
- Kautilya emphasised that the King was only a trustee of the land and his duty was to protect it and to make it more and more productive so that land revenue could be collected as a principal source of income for the State. According to him, tax was not a compulsory contribution to be made by the subject to the State but the relationship was based on Dharma and it was the King's sacred duty to protect its citizens in view of the tax collected and if the King failed in his duty, the subject had a right to stop paying taxes, and even to demand refund of the taxes paid.
- o Kautilya has also described in great detail the system of tax administration in the Mauryan Empire. It is remarkable that the present day tax system is in many ways similar to the system of taxation in vogue about 2300 years ago. According to the Arthasastra, each tax was specific and there was no scope for arbitratiness. Precision determined the schedule of each payment, and its time, manner and quantity being all predetermined. The land revenue was fixed at 1/6 share of the produce and import and export duties were determined on advalorem basis.
- The import duties on foreign goods were roughly 20 per cent of their value. Similarly, tolls, road cess, ferry charges and other levies were all fixed. Kautilya's concept of taxation is more or less akin to the modern system of taxation. His overall emphasis was on **equity and justice in taxation.** The **affluent had to pay higher taxes** as compared to the not so fortunate. People who were suffering from diseases or were minor and students were exempted from tax or given suitable remissions. The revenue collectors maintained up-to-date records of collection and exemptions. The total revenue of the State was collected from a large number of sources as enumerated above. There were also other sources like profits from Stand land (Sita)



religious taxes (Bali) and taxes paid in cash (Kara). **Vanikpath** was the income from roads and traffic paid as tolls.

- He placed land revenues and taxes on commerce under the head of tax revenues. These were fixed taxes and included half yearly taxes like Bhadra, Padika, and Vasantika. Custom duties and duties on sales, taxes on trade and professions and direct taxes comprised the taxes on commerce. The non-tax revenues consisted of produce of sown lands, profits accruing from the manufacture of oil, sugarcane and beverage by the State, and other transactions carried on by the State. Commodities utilised on marriage occasions, the articles needed for sacrificial ceremonies and special kinds of gifts were exempted from taxation. All kinds of liquor were subject to a toll of 5 precent. Tax evaders and other offenders were fined to the tune of 600 panas.
- Kautilya also laid down that during war or emergencies like famine or floods, etc. the taxation system should be made more stringent and the king could also raise war loans. The land revenue could be raised from 1/6th to 1/4th during the emergencies. The people engaged in commerce were to pay big donations to war efforts.
- Taking an overall view, it can be said without fear of contradiction that Kautilya's Arthasastra was the first authoritative text on public finance, administration and the fiscal laws in this country. His concept of tax revenue and the on-tax revenue was a unique contribution in the field of tax administration. It was he, who gave the tax revenues its due importance in the running of the State and its far-reaching contribution to the prosperity and stability of the Empire. It is truly an unique treatise. It lays down in precise terms the art of state craft including economic and financial administration.

4 INSOLVENCY AND BANKRUPTCY CODE (AMENDMENT)ORDINANCE, 2021

- o It amends the Insolvency and Bankruptcy Code, 2016.
- o Insolvency is a situation where individuals or companies are unable to repay their outstanding debt.
- The Code provides a time-bound process for resolving the insolvency of corporate debtors (within 330 days) called the corporate insolvency resolution process (CIRP).
- o The **debtor himself or its creditors may apply for initiation of CIRP** in the event of a default of at least one lakh rupees. Under CIRP, a committee of creditors is constituted to decide regarding the insolvency resolution. The committee may consider a resolution plan which typically provides for the payoff of debt by merger, acquisition, or restructuring of the company. If a resolution plan is not approved by the committee of creditors within the specified time, the company is liquidated. During CIRP, the affairs of the company are managed by the resolution professional (RP), who is appointed to conduct CIRP.
- o **Pre-packaged insolvency resolution**: The Ordinance introduces an alternate insolvency resolution process for micro, small, and medium enterprises (MSMEs), called the pre-packaged insolvency resolution process (PIRP). Unlike CIRP, **PIRP may be initiated only by debtors**. The debtor should have a base resolution plan in place. During PIRP, the management of the company will remain with the debtor.
- Minimum default amount: Application for initiating PIRP may be filed in the event of a default of at least one lakh rupees. The central government may increase the threshold of minimum default up to one crore rupees through a notification.
- o **Debtors eligible for PIRP**: PIRP may be initiated in the event of a default by a corporate debtor classified as an MSME under the MSME Development Act, 2006. Currently, under the 2006 Act, an enterprise with an annual turnover of up to Rs 250 crore, and investment in plant and machinery or equipment up to Rs 50 crore, is classified as an MSME. For initiating PIRP, the corporate debtor himself is required to apply to the adjudicating authority (National Company Law Tribunal). The authority must approve or reject the application for PIRP within 14 days of its receipt.
- Approval of financial creditors: For applying for PIRP, the debtor needs to obtain approval of at least 66% of its financial creditors (in value of debt due to creditors) who are not related parties of the debtor. Before seeking approval, the debtor must provide creditors with a base resolution plan. The debtor



must also propose the name of the RP along with the application for PIRP. The proposed RP must be approved by at least 66% of the financial creditors.

- Proceedings under PIRP: The debtor will submit the base resolution plan to the RP within two days of the commencement of the PIRP. A committee of creditors will be constituted within seven days of the PIRP commencement date, which will consider the base resolution plan. The committee may provide the debtor with an opportunity to revise the plan. The RP may also invite resolution plans from other persons. Alternative resolution plans may be invited if the base plan: (i) is not approved by the committee, or (ii) is unable to pay the debt of operational creditors (claims related to the provision of goods and services).
- A resolution plan must be approved by the committee by a vote of at least 66% of the voting shares. A resolution plan must be approved by the committee within 90 days from the commencement date of PIRP. The resolution plan approved by the committee will be examined by the adjudicating authority. If no resolution plan is approved by the committee, the RP may apply for termination of PIRP. The authority must either approve the plan or order termination of PIRP within 30 days of receipt. Termination of PIRP will result in the liquidation of the corporate debtor.
- Moratorium: During PIRP, the debtor will be provided with a moratorium under which certain actions
 against the debtor will be prohibited. These include filing or continuation of suits, execution of court orders,
 or recovery of property.
- Management of debtor during PIRP: During the PIRP, the board of directors or partners of the debtor
 will continue to manage the affairs of the debtor. However, the management of the debtor may be vested
 with the RP if there has been fraudulent conduct or gross mismanagement.
- o **Initiation of CIRP**: At any time from the PIRP commencement date but before the approval of the resolution plan, the committee of creditors may decide to terminate PIRP and instead initiate CIRP in respect of the debtor (by a vote of at least 66% of the voting shares).

4 NATIONAL COMPANY LAW TRIBUNAL

- The National Company Law Tribunal is a quasi-judicial body in India that adjudicates issues relating to Indian companies.
- o The tribunal was established under the Companies Act 2013 and was constituted on 1 June 2016 by the government of India and is based on the recommendation of the V. Balakrishna Eradi committee on law relating to the insolvency and the winding up of companies.
- All proceedings under the Companies Act, including proceedings relating to arbitration, compromise, arrangements, reconstructions and the winding up of companies shall be disposed off by the National Company Law Tribunal.
- The NCLT bench is chaired by a **Judicial member** who is supposed to be a retired or a serving High Court Judge and a Technical member who must be from the Indian Corporate Law Service, ICLS Cadre.
- The National Company Law Tribunal is the adjudicating authority for the insolvency resolution process of companies and limited liability partnerships under the Insolvency and Bankruptcy Code, 2016.
- No criminal court shall have jurisdiction to entertain any suit or proceeding in respect of any matter which the Tribunal or the Appellate Tribunal is empowered to determine by or under this Act or any other law for the time being in force and no injunction shall be granted by any court or other authority in respect of any action taken or to be taken in pursuance of any power conferred by or under this Act or any other law for the time being in force, by the Tribunal or the Appellate Tribunal.
- o The **tribunal has sixteen benches**, six at New Delhi (one being the principal bench) and two at Ahmedabad, one at Allahabad, one at Bengaluru, one at Chandigarh, two at Chennai, one at Cuttack, one at Guwahati, three at Hyderabad of which one is at Amaravathi, one at Jaipur, one at Kochi, two at Kolkata and five at Mumbai.
- o Of the two new benches approved to be set up, one each in Indore and Amaravathi, the Indore bench is yet to be notified. Except the Bench at Amaravathi, all the benches have been notified as division benches. Justice M.M. Kumar, a retired Chief Justice of the Jammu & Kashmir High Court has been appointed president of the tribunal.



- The National Company Law Tribunal has the power under the Companies Act to adjudicate proceedings:
- Initiated before the Company Law Board under the previous act (the Companies Act 1956);
- Pending before the Board for Industrial and Financial Reconstruction, including those pending under the Sick Industrial Companies (Special Provisions) Act, 1985;
- Pending before the Appellate Authority for Industrial and Financial Reconstruction; and
- Pertaining to claims of oppression and mismanagement of a company, winding up of companies and all other powers prescribed under the Companies Act.
- Decisions of the tribunal may be appealed to the National Company Law Appellate Tribunal, the decisions
 of which may further be appealed to the Supreme Court of India on a point of law. The Supreme Court of
 India has upheld the Insolvency and Bankruptcy Code in its entirety.

4 HOUSEHOLD SAVINGS DECLINED

The Reserve Bank of India (RBI) released its preliminary estimate of household financial savings. For lakks of households in the country, the Covid-19 pandemic has led to a decline in financial assets such as bank deposits, pension money, life insurance funds and currency holdings. While the RBI estimated an increase in debt of around 20 crore households, which contribute around 60% of gross savings in the economy, financial savings showed a decline of over 45% from June to December 2020.

The broad takeaways from the estimate

Financial savings

- When the pandemic first struck, household financial savings initially jumped In the first quarter of 2020-21, but went on to witness sequential moderation in the next two quarters.
- According to the RBI's preliminary estimate, household financial savings were at 8.2% of GDP in the third quarter, after being at 10.4% of GDP in the second quarter (ended September 2020) and 21% the June quarter.
- o In absolute terms, net financial assets of households fell to Rs 4,44,583 crore in the December quarter from Rs 4,91,906 crore in the September quarter and Rs 8,15,886 crore in the June quarter.

Household deposits

- While overall bank deposits have been going up, the share of households has been coming down. The ratio
 of household (bank) deposits to GDP declined to 3.0% in the December quarter of 2020-21 from 7.7% in the
 previous quarter.
- In absolute numbers, household deposits fell from Rs 3,67,264 crore in September to Rs 1,73,042 crore in December. This could be, according to banking analysts, due to the tendency of households to withdraw cash to meet emergency needs. During April-June 2020, deposits had fallen to Rs 1,25,848 crore from Rs 4,55,464 crore in January-March.
- o This suggests that when Covid infections shoot up, deposits of households decline, only to pick up partially when the situation improves and fall again when infections rise again later.

Currency holdings

- o After the government announced a stringent lockdown in March last year, currency with the public increased by Rs 3.07 lakh crore between March and June, from Rs 22.55 lakh crore to Rs 25.62 lakh crore in the fortnight ended June 19, 2020. Now, currency with the public is at a record high of Rs 28.78 lakh crore, as per the latest RBI data.
- While currency with the public has been rising, its pace slowed since July, before gathering momentum once again in February 2021.
- o Bankers say a rise in currency holdings indicates that people have started to accumulate cash in anticipation of more stringent lockdown measures, prompting more withdrawals at the ATM.



sLife insurance funds

- The insurance industry has undergone a significant transformation since the pandemic struck, with demand for policies rising. Life insurers' new business premium income had declined 27.9% in April and May 2020. However, for the full fiscal 2020-21, premium income recovered and rose by 7.49%.
- Life insurance funds of households plummeted to Rs 33,549 crore in March quarter of FY2020. However, as infections and deaths increased, funds rose to Rs 1,23,324 crore in June quarter, Rs 1,42,422 crore in September quarter and Rs 1,56,320 crore in December quarter of FY2021.
- o The insurance industry ended the last financial year at 9% growth in life and non-life combined. During the April-May period of the current fiscal, it has grown 17%.

Equity holdings

- Stock markets have progressively improved with the Sensex rising from 28,265 at the beginning of April 2020 to above 52,000 now.
- o After the decline in March and the beginning of April 2020, the markets recovered but households' investment in equity declined.
- The share of savings in shares and debentures out of total household financial savings, which was 3.4% in FY20, is likely to increase in FY21 to 4.8-5% (or to 0.7 % of GDP from 0.4% of GDP in FY20), which is still much lower than 36.5% in the US, according to an SBI report.
- Mutual fund holdings of households contracted by Rs 51,926 crore in the March 2020 quarter but improved later, showing a growth of Rs 66,195 crore in June 2020, Rs 11,909 crore in September and Rs 65,312 crore in December.

Small savings

Household savings in small saving schemes like post office and National Savings Certificate remained unchanged at Rs 75,879 crore in the three quarters of FY 2021. Most of these schemes have a lock-in period, preventing investors from withdrawing from them.

Household debt

- o The household debt to GDP ratio, which is based on select financial instruments, has been increasing steadily since end-March 2019. It rose sharply to 37.9% at end-December 2020 from 37.1% at end-September 2020.
- Households' liabilities to the banking sector contracted by Rs 1,38,472 crore in the June quarter of 2020, but increased to Rs 2,18,216 crore in December. The RBI had announced a moratorium on loan repayment last year.
- Despite higher borrowings from banks and housing finance companies, the flow in household financial liabilities was marginally lower in the December quarter of 2020-21 following a marked decline in borrowings from non-banking financial companies.





SOCIETY

(Social Issues and Social Justice)

4 GENDER SELF-IDENTIFICATION

The Spanish government approved the first draft of a bill that would allow anyone over the age of 14 to legally change gender without a medical diagnosis or hormone therapy.

The bill will now go to a public hearing, and will then come for a second reading in the national cabinet. To become law, it then has to be approved by the lower house of the Spanish parliament.

Currently, for someone to change their gender in official records, the law first requires two years of hormone therapy and a psychological evaluation. The proposed law will remove these requirements for everyone above 14 years of age. Those between 14 and 16, however, would require parental approval.

What is gender self-identification?

- Self-identification, or 'self-id', is the concept that a person should be allowed to legally identify with the
 gender of their choice by simply declaring so, and without facing any medical tests. This has been a long held
 demand of trans-right groups around the world, including in India, as prejudice against trans people remains
 rampant.
- o In Europe, this issue has remained divisive not only on liberal-conservative lines, but also within the LGBT community,. While some believe that the current processes for declaring one's desired gender are lengthy, expensive and degrading, some feminist and gay-rights groups insist that such a law could endanger women and cause more gay teenagers to be told that they might be trans and thus encouraged towards hormones and surgery.
- Feminist forums that believe that sex is not something which can be chosen have insisted that allowing selfidentification could put at risk all laws that specifically prevent discrimination against women, and have instead asked lawmakers to look at concerns that they say are more pressing, such as the gender pay gap.

Where is self-ID legal?

- As per the advocacy group ILGA (the International Lesbian, Gay, Bisexual, Trans and Intersex Association),
 15 countries around the world recognise self-ID, including Denmark, Portugal, Norway, Malta, Argentina,
 Ireland, Luxembourg, Greece, Costa Rica, Mexico (only in Mexico City), Brazil, Colombia, Ecuador and
 Uruguay.
- o In Denmark, the law requires a six-month reflection period for formalising gender change. In Portugal, changing one's gender for the second time requires going to court.
- o Italy does not allow self-ID, and neither does Germany, where last month a bill was voted down that would have legalised gender-reassignment surgery from the age of 14 regardless of opposition from parents, as well as introduced a fine of 2,500 euros for referring to a trans person based on their natal sex. In Hungary, a newly adopted law effectively bans all content about homosexuality and gender change from school curriculum and television shows for children under the age of 18.

What is the process for declaring one's desired sex in India?

- In India, the rights of transgender persons are governed by the Transgender Persons (Protection of Rights) Act, 2019 and the Transgender Persons (Protection of Rights) Rules, 2020. Under the Rules, an application to declare gender is to be made to the District Magistrate. Parents can also make an application on behalf of their child.
- A much-criticised previous draft of regulations required transgender persons to go through a medical examination for declaring their desired sex. This requirement was omitted in the final Rules, which state that the District Magistrate will "subject to the correctness of the applicant's particulars, get the application processed based on the affidavit submitted declaring the gender identity of any person, without any medical



- or physical examination, and thereafter, issue an identification number to the applicant, which may be quoted as proof of application."
- As per the Rules, state governments have also been directed to constitute welfare boards for transgender persons to protect their rights and interests, and facilitate access to schemes and welfare measures framed by the Centre.

4 COVID 19 AND INCREASE IN CHILD LABOUR

The true extent of the impact of the COVID-19 pandemic on child labour is yet to be measured but all indications show that it would be significant as children are unable to attend school and parents are unable to find work. However, not all the factors that contribute to child labour were created by the pandemic; most of them were pre-existing and have been exposed or amplified by it.

What is the meaning of child labor?

- International labor Organization (ILO) defines child labor as 'work that deprives children of their childhood, their potential and their dignity, and that is harmful to physical and mental development'.
- o It refers to work that is mentally, physically, socially or morally dangerous and harmful to children; and interferes with their schooling.
- According to the Indian legislation, 'child' is anyone who has not completed 14 years of age and 'adolescent' is anyone who has completed their 14th year of age but is below 18 years.
- This law divides work into hazardous and non-hazardous categories as identified by the Technical Advisory Committee constituted under the Act. The Schedule to the Act enlists 38 occupations and processes as 'hazardous' and 69 others which are non-hazardous.

What the data show

- As the world enters the third decade of the 21st century, 152 million children around the world are still in child labour, 73 million of them in hazardous work. A Government of India survey suggests that 95% of the children in the age group of 6-13 years are attending educational institutions (formal and informal) while the corresponding figures for those in the age group of 14-17 years is 79.6%. Hence, a large number of children in India remain vulnerable, facing physical and psychological risks to a healthy development.
- The Census of India 2011 reports 10.1 million working children in the age group of 5-14 years, out of whom 8.1 million are in rural areas mainly engaged as cultivators (26%) and agricultural labourers (32.9%). While multiple data vary widely on enrolment/attendance ratios in India, UNESCO estimates based on the 2011 Census record 38.1 million children as "out of school" (18.3% of total children in the age group of 6-13 years).
- Work performed may not appear to be immediately dangerous, but it may produce long-term and devastating consequences for their education, their skills acquisition, and hence their future possibilities to overcome the vicious circle of poverty, incomplete education and poor quality jobs. A Rapid Survey on Children (2013-14), jointly undertaken by the Ministry of Women and Child Development and UNICEF, found that less than half of children in the age group of 10-14 years have completed primary education. These remain challenges we must overcome.

A decrease in India

- One piece of good news is that child labour in India decreased in the decade 2001 to 2011, and this demonstrates that the right combination of policy and programmatic interventions can make a difference. Policy interventions such as the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) 2005, the Right to Education Act 2009 and the Mid Day Meal Scheme have paved the way for children to be in schools along with guaranteed wage employment (unskilled) for rural families.
- Concerted efforts towards convergence of government schemes is also the focus of the implementation of the National Child Labour Project.



- Ratifying International Labour Organization Conventions Nos. 138 and 182 in 2017, the Indian government further demonstrated its commitment to the elimination of child labour including those engaged in hazardous occupations.
- The Ministry of Labour and Employment-operated online portal allows government officials, law enforcement agencies and non-governmental organisations to share information and coordinate on child labour cases at the national, State and local levels for effective enforcement of child labour laws.
- While child labour has declined during the past decade globally, estimates indicate that the rate of reduction has slowed by two-thirds in the most recent four-year period. These positive and negative trends have to be taken into account when developing India's policy and programmatic response during and after the novel coronavirus pandemic.
- The economic contraction and lockdowns ensuing from the pandemic have affected all countries in Asia, leading to income reductions for enterprises and workers, many of them in the informal economy. The large number of returned migrant workers has compounded the socio-economic challenges. India experienced slower economic growth and rising unemployment even before the pandemic. Subsequent lockdowns have worsened the situation, posing a real risk of backtracking the gains made in eliminating child labour. With increased economic insecurity, lack of social protection and reduced household income, children from poor households are being pushed to contribute to the family income with the risk of exposure to exploitative work.

Challenges in education

- With closure of schools and challenges of distance learning, children may drop out leaving little scope for return unless affirmative and immediate actions are taken.
- As many schools and educational institutions are moving to online platforms for continuation of learning, the 'digital divide' is a challenge that India has to reconcile within the next several years.
- The NSS Report No. 585 titled 'Household Social Consumption on Education in India' suggests that in 2017-18, only 24% of Indian households had access to an Internet facility, proportions were 15% among rural households and 42% among urban households.
- The Annual Status of Education Report (ASER) 2020 survey highlights that a third of the total enrolled children received some kind of learning materials from their teachers during the reference period (October 2020) as digital mode of education was opted for.
- The challenges are significant and manifold but it is not impossible to meet them if the right level of commitment among all the relevant stakeholders and the right mix of policy and programmatic interventions are present. It is through strategic partnerships and collaborations involving government, employers, trade unions, community-based organisations and child labour families that we could make a difference building back better and sooner.
- As we reinforce the commitment to protect children from unacceptable forms of work, our focus to mitigate
 the aftermath of the pandemic also remains. We need a strong alliance paving our way towards ending child
 labour in all its forms by 2025 as countries around the world have agreed to in Sustainable Development
 Goal 8.7.
- We governments, employers, unions, civil society organisations and even individuals must rise and
 pledge to 'Take Action against Child Labour' as a part of the UN's declaration of 2021 as the
 International Year for the Elimination of Child Labour. Our actions today will determine the future
 of children tomorrow.

Is child labor illegal in India?

- In 1992, when India ratified the United Nations Convention on the Rights of the Child (UNCRC), a reservation was made in Article 32, wherein the Government of India articulated that it would progressively ban all forms of child labor.
- o After nearly three decades since the child labor law came into force, India has the opportunity to amend the law in favour of its children. Since India's legal system gives basis to the assumption that children can work and still get an education, the new Child Labor Act allows children under the age of 14 to work in family occupations after school hours.



 However, when only 49% of working children between the ages of 5-14 and 17% between 15-18 years parallelly attend school – the numbers completely contradict the above assumption and leave a glaring gap in the prohibition of child labor.

4 RELIGIONS IN INDIA

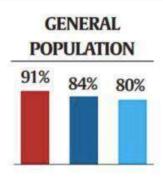
A study by Pew Research Center has found that most Indians respect religious diversity. Yet they prefer to live in separate spheres, and frown on interfaith marriages.

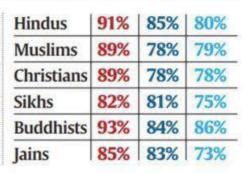
- o More Indians see **diversity as a benefit** (53%) than view it as a liability (24%) for their country; the rest do not take a clear position.
- o Again, 84% of Indians believe that respecting all religions is very important to being truly Indian, and 80% believe respecting other religions is a very important part of their religious identity (Chart 1).

CHART 1

INDIANS FEEL THEY HAVE RELIGIOUS FREEDOM, SEE RESPECTING ALL RELIGIONS AS A CORE VALUE % of Indian adults who say...

■ They are free to practise their religion
■ Respecting all religions is very important to being truly Indian
■ Respecting other religions is a very important part of their religious identity





And yet, about two in every three Indians put a high priority on stopping interfaith and intercaste marriages

For all the new laws aimed at stopping intercommunity marriages, the survey found very little change caused by conversion to the size of various religious groups among the respondents.

When it comes to neighbours, large sections among the minority communities say they would be willing to live near a Hindu. Most Hindus, too, say they would be willing to live near a Muslim, a Christian or a Jain. But many Hindus also have reservations: for example, 36% would not be willing to live near a Muslim.

CHART 2

STOPPING RELIGIOUS INTERMARRIAGE IS A HIGH PRIORITY FOR HINDUS, MUSLIMS AND OTHERS

% of Indian adults who say it is very important to stop women/men in their community

	STOPPING WOMEN		STOPPING MEN	
Hindus		67%		65%
Muslims		80%		76%
Christians	37%		35%	
Sikhs	5	9%		58%
Buddhists	48%		44%	ě
Jains		66%		59%
	Concestmenulation	C79/		659

TABLE 1

MOST INDIANS SAY IT IS VERY IMPORTANT TO STOP PEOPLE FROM MARRYING OUTSIDE THEIR CASTE

% of Indian adults who say it is very important to stop ____ in their community from marrying into another caste

	MEN	WOMEN
General population	62%	64%
General population	59%	61%
SC	59%	60%
ST	66%	68%
OBC/MBC	67%	69%
Hindus	63%	64%
Muslims	70%	74%
Christians	36%	37%
Sikhs	59%	58%
Buddhists	44%	44%
Jains	57%	61%

RELIGIOUS GROUPS SHOW LITTLE CHANGE IN SIZE DUE TO CONVERSION

TABLE 2

No religion

% of Indian adults who were/are... RAISED CURRENTLY Hindu 81.6% 81.7% Muslim 11.2% 11.2% Christian 2.3% 2.6% Sikh 2.3% 2.3% Buddhi 1.7% 1.7% Jain 0.3% 0.2% Other 0.5% 0.2%

Note: Small differences between the religious composition of the survey and the census may occur due to the exclusion of the Kashmir Valley and certain other regions in the survey.

0.1%

0.0%



CHART 3

VAST MAJORITY OF INDIA'S MUSLIMS SAY INDIAN CULTURE IS SUPERIOR

% of Indian Muslims who agree/disagree with the statement "Indian people are not perfect, but Indian culture is superior to others"

Completely agree	6	3
Mostly agree	22	85
Mostly disagree	4	-
Completely disagree	2	

Note: Don't know/Refused responses not shown. Figures may not add to subtotals indicated due to rounding.

TABLES

OVERALL, 1 IN 5 MUSLIMS SAY THEY HAVE PERSONALLY FACED RELIGIOUS DISCRIMINATION RECENTLY

% of Muslims who say they have personally faced religious discrimination in the past 12 months

Overall			21%
North	40%	East	17%
West	15%	Northeast	36%
Central	18%	South	19%

Note: Fieldwork could not be conducted in the Kashmir Valley, Manipur and Sikkim. No locations in Chandigarh, Dadra & Nagar Haveli and Daman & Diu, or Ladakh were included in the survey. Fieldwork was not conducted in Andaman and Nicobar Islands or Lakshadweep.

A majority of Muslims say they are against triple talaq, with women more opposed to it than men. The survey also found three-quarters of Muslims in favour of having access to their own religious courts for family disputes.

CHART 5

MOST INDIAN MUSLIMS OPPOSE TRIPLE TALAO

% of Indian adults who say Muslim men should be able to divorce their wives by saying 'talaq' three times

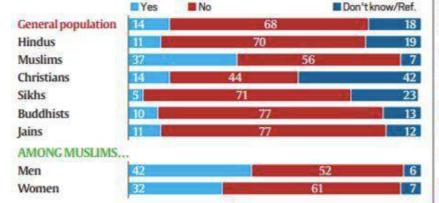


TABLE 4

RELATIVELY SMALL SHARES ACROSS VARIOUS GROUPS SAY THERE IS A LOT OF RELIGIOUS DISCRIMINATION IN INDIA

% of Indian adults who say there is a lot of discrimination against ____ in India

	Hindus	Muslims	Christians	Sikhs	Buddhists	Jains
General population	20%	18%	10%	7%	7%	7%
Hindus	21%	17%	10%	7%	7%	7%
Muslims	16%	24%	8%	6%	6%	6%
Christians	14%	16%	18%	6%	6%	5%
Sikhs	17%	21%	16%	14%	12%	11%
Buddhists	21%	20%	11%	10%	18%	8%
Jains	21%	18%	13%	8%	3%	12%

TABLE 5

INDIA'S HINDUS MOSTLY SAY A PERSON CANNOT BE HINDU IF THEY EAT BEEF, CELEBRATE EID

% of Indian Hindus who say a person cannot be Hindu if they...

Eat beef	72%
Celebrate Eid	63%
Do not celebrate Hindu festivals	56%
Celebrate Christmas	52%
Do not believe in God	49%
Never go to temples	48%
Never perform prayers	48%

TABLE 6

INDIAN MUSLIMS MORE LIKELY TO SAY EATING PORK IS INCOMPATIBLE WITH ISLAM THAN NOT BELIEVING IN GOD

% of Indian Muslims who say a person cannot be Muslim if they...

Eat pork	77%
Never offer namaz	67%
Do not celebrate Muslim festivals	64%
Never attend mosque	61%
Do not believe in God	60%
Celebrate Christmas	59%
Celebrate Diwali	58%



LGBTQIA+

- o LGBTOIA+ is an inclusive acronym used by the LGBTQIA+ community. The acronym LGBTQIA+ is an ever growing and evolving acronym.
- o It is an inclusive term covering people of all genders and sexualities, such as lesbian, gay, bisexual, transgender, questioning, queer, intersex, asexual, pansexual, and allies. Since this is not one group but several different groups, it's important to examine what each different letter stands for.

Meaning of LGB: The first three letters of LGBTQIA+ deal with sexual identity. LGB can be broken down into lesbian, gay, and bisexual. Explore the meanings of these different terms.

- o lesbian term for women sexually and affectionately oriented toward other women. However, the term can also be used non-binary individuals, especially those that are attracted to women or feel connected to womanhood
- o gay homosexual person or those attracted to same gender
- **bisexual** those that are sexually and affectionately attracted both to men and women

The T Defined: The T in LGBTQIA+ can have several different meanings, but typically deals with gender identity. Some words have fallen out of favor or their meanings are slightly different depending on the person.

- o trans - an inclusive term for transgender, non-conforming, and nonbinary individuals
- o transsexual can mean someone transitioning from one sex to another using surgery or medical treatments. However, this term has fallen out of favor for trans or transgender.
- o transgender term for someone that identifies as a different gender than what was assigned on their birth certificate

What Does QIA Mean? QIA stands for questioning/queer, intersex, and asexual. Dive into the meanings of these letters in the acronym.

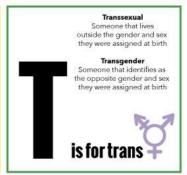


This inclusive acronym represents the diversity of gender identities and sexual orientations that exist for people on the spectrum. The definitions included here are often changing, and mean different things to different people. This is a guide meant to help people understand the many ways to identify



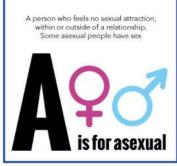


A sexual and affectionate orientation toward people of the same gender and opposite gender or towards people regardless of gender is for bisexual











o **questioning** - when a person is exploring their sexuality, gender identity, and gender expression



- o **queer** this term can have various definitions but can be seen as an inclusive term or as a unique celebration of not molding to social norms
- o **intersex** this word can have various meanings; it's used for individuals that don't fit into specific gender norms of woman or man; it can also be used for those with reproductive anatomy that isn't typical.
- asexual use for those that don't feel sexual attraction to either sex or that don't feel romantic attraction in the typical way

LGBTQIA+ Meaning: To be inclusive to everyone, the LGBTQ full acronym has changed to add the plus at the end. This works to allow the acronym to cover new subsects of the community like:

- o **ally** a term for individuals that support and rally the cause even though they don't identify within the community
- o **pansexual/omnisexual** similar to bisexual, this describes individuals with desire for all genders and sexes
- o **androgynous** describes those with both male and female traits
- o **genderqueer** a gender term used for those with no, both, or a combination of genders
- o **two-spirit** typically used by Native Americans to describe a third gender
- o **demisexual** describes someone that requires an emotional bond to form a sexual attraction
- o **polyamorous** term for those open to multiple consensual romantic or sexual relationships at one time.

4 EDUCATION INDEX 2019-20

Punjab, Tamil Nadu and Kerala have all scored higher than 90% in the Education Ministry's Performance Grading Index for 2019-20.

Grade sheet

- The index monitors the progress that States and Union Territories have made in school education with regard to learning outcomes, access and equity, infrastructure and facilities, and governance and management processes.
- o **Punjab has recorded the highest score** of almost 929 out of a possible 1,000, showing a huge jump from 769 last year. The State topped the charts in terms of equity, infrastructure and governance, and shared the top spot in the domain of access with Kerala. In fact, Punjab overtook the Union Territory of Chandigarh, which had topped both previous editions of the index, but has now slid to second place with a score of 912.
- Tamil Nadu also overtook Kerala, with a score of 906, largely driven by improvements in the State's educational governance and management, as well as in terms of infrastructure and facilities.
- Three States, Punjab, Tamil Nadu and Kerala, attained a score of more than 900 out of 1,000 in the Education Ministry's Performance Grading Index for 2019-20 PGI SCORE (2019-20) 545 929 Punjab 929 Bihar 747 Gujarat 884 Telangana 772 Maharashtra 869 • Andhra Pradesh Karnataka SCHOOL 813 Tamil Nadu Kerala 901 906
- o Gujarat, which had the second highest score in the previous edition, dropped to eighth place. It has regressed in the key domain of access, which measures enrolment of students in school and the ability to keep them from dropping out as well as mainstreaming out-of-school students. Its progress in other areas also did not keep pace with other States.
- Madhya Pradesh and Chhattisgarh saw a glaring drop in their governance scores, pushing both States to an
 overall performance that was worse than in the previous edition. The new Union Territory of Ladakh was
 included separately for the first time in this edition, and had the lowest score of just 545.
- o This is the third edition of the index and uses 70 indicators to measure progress. Of these, the 16 indicators related to learning outcomes remain unchanged through all three editions, as they are based on data from



the 2017 National Achievement Survey, which tested students in Classes 3, 5, 8 and 10. The next NAS was scheduled to be held in 2020, but was postponed because of the pandemic. The remaining 54 parameters use Central databases, collating information from the school and district level, and have been updated for 2018-19.

4 SEX WORKERS NEED PROTECTION

The pandemic has hit millions of people and caused a great deal of suffering across communities. But there is one community that is especially hard hit and that is sex workers. Owing to the non-recognition of sex work as "legitimate work", sex workers have mostly been kept at arm's length from the government's relief programmes. COVID-19 has thus provided more reason to consider a long-pending demand of sex workers in India — decriminalisation of sex work and a guaranteed set of labour rights.

An archaic, regressive view

- The legislation governing sex work in India is the Immoral Traffic (Prevention) Act. The Suppression
 of Immoral Traffic in Women and Children Act was enacted in 1956. Subsequent amendments were made
 to the law and the name of the Act was changed to Immoral Traffic (Prevention) Act.
- o The legislation penalises acts such as keeping a brothel, soliciting in a public place, living off the earnings of sex work and living with or habitually being in the company of a sex worker.
- o This Act represents the archaic and regressive view that sex work is morally wrong and that the people involved in it, especially women, never consent to it voluntarily. After all, in popular depiction, entry into sex work is involuntary, forced, and through deception. As a consequence, it is believed that these women need to be "rescued" and "rehabilitated", sometimes even without their consent. While this is a valid argument for minor girls, for many consenting adult sex workers, it has been a problem. This is what has led to the classification of "respectable women" and "non-respectable women". This view is based on the belief that sex work is "easy" work and no one will or should choose to practise it. It thus perpetuates the prejudice that women who do practise sex work are morally devious.
- o The Act has not only criminalised sex work but also further stigmatised and pushed it underground thus leaving sex workers more prone to violence, discrimination and harassment.
- o The Act denies an individual their right over their bodies. Moreover, it imposes the will of the state over adults articulating their life choices. It gives no agency to the sex workers to fight against the traffickers and in fact, has made them more susceptible to be harassed by the state officials.
- The Act fails to recognise that many women willingly enter into agreements with traffickers, sometimes just to seek a better life as chosen by them. Evidence shows that many women choose to remain in sex work despite opportunities to leave after 'rehabilitation' by the government or non-governmental organisations.

Labour rights

- The Justice Verma Commission had also acknowledged that there is a distinction between women who
 are trafficked for commercial sexual exploitation and adult, consenting women who are in sex work of their
 own volition.
- We must recognise sex work as work and stop ourselves from assigning morality to their work. Adult men, women and transgender persons in sex work have the right to earn through providing sexual services; live with dignity; and remain free from violence, exploitation, stigma and discrimination. It is time we rethink sex work from a labour perspective, where we recognise their work and guarantee them basic labour rights.
- The judiciary is moving in the direction of recognising sex workers' right to livelihood. The Supreme Court, in **Budhadev Karmaskar v. State of West Bengal (2011)**, opined that sex workers have a right to dignity. Parliament must also take a re-look at the existing legislation and do away with the 'victim-rescuerehabilitation' narrative. During these times of crisis especially, this is all the more important.



4 REGISTRATION OF BIRTHS AND DEATHS

The level of registration of births and deaths in the country improved in 2019, according to the "Vital Statistics of India Based on The Civil Registration System" report.

- o The report states that the level of birth registration increased from 87.8% in 2018 to 92.7% in 2019; and death registrations went up from 84.6% to 92% during the period.
- o While 14 States/Union Territories achieved 100% level of birth registrations, 19 States/Union Territories achieved the same level in cases of death.

Sex ratio at birth

- Based on the information received from 32 States/Union Territories, the share of institutional births in the total registered births was 81.2%. The number of registered births increased to 2.48 crore in 2019 from 2.33 crore in 2018. The share of male and female was 52.1% and 47.9%.
- o In the case of registration of births within the prescribed period of 21 days, 15 States/Union Territories achieved more than 90% registration.
- The highest sex ratio at birth (SRB) based on registered events was reported by Arunachal Pradesh (1,024), followed by Nagaland (1,001), Mizoram (975) and Andaman & Nicobar Islands (965).
- o The lowest SRB was reported by **Gujarat (901)**, Assam (903) and Madhya Pradesh (905), followed by Jammu & Kashmir (909).
- o The number of registered deaths increased from 69.5 lakh in 2018 to 76.4 lakh in 2019. The share of male and female was 59.6% and 40.4%.
- o Based on the information received from 31 States/Union Territories, the share of institutional deaths in total registered deaths was 32.1%.

Infant deaths

- Eleven States/Union Territories achieved more than 90% registration of deaths within the prescribed period of 21 days.
- o In the case of registration of infant deaths, the share of urban area was 75.5% compared to 24.5% in rural areas.
- In the north-east, Arunachal Pradesh reported 100% registration of births, but only 38.6% of deaths.
 Nagaland also registered 100% births, but just 30% deaths, while Manipur recorded 67.7% births and only 21.4% deaths. In Sikkim, there was 100% registration of deaths, but 61.2% registration of births.

Full registration

- However, Mizoram and Tripura reported 100% registration of both births and deaths. Meghalaya had 100% registration of births and 97.6% registration of deaths, while Assam reported 100% registration of births and 74% registration of deaths.
- o In Bihar and Jharkhand, the levels of registration of births were 89.3% and 84.3% and the levels of registration of deaths were 51.6% and 58.8%. In Daman & Diu, the figures were 50.7% and 61%.
- Listing the limitations, the report said the level of registration of States/Union Territories and India level presented in the report was arrived at using the mid-year projected population of the respective States/Union Territories of 2011-2019 based on 2011 census (Report of the Technical Group on Population Projections, July 2020, National Commission on Population, Ministry of Health & Family Welfare) and, therefore, was not comparable with rates presented in previous reports.

Incomplete data

The level of registration was arrived at using Sample Registration System Rates for 2018 as the survey for 2019, which was scheduled for 2020, could not be completed due to the COVID-19 pandemic. Besides, some States/Union Territories submitted incomplete or partial data, which was not included.



4 DECRIMINALISE SUICIDE

India has the highest suicide rate in the Southeast Asian region, according to the World Health Organization. Depression, chronic ill health, guilt, trauma, substance abuse, failure in exams, and loss of loved ones are some of the reasons which influence a person's decision to take his or her life.

A total of 1,34,516 cases of suicide were reported in 2018 in India, according to the National Crime Records Bureau. While the rate of suicide was 9.9 in 2017, it increased to 10.2 in 2018.

Crime and punishment

- o **Section 309 of the Indian Penal Code** dictates the penal provision for attempting suicide.
- o If a person is suffering from any mental trauma or illness, he or she should be given reformative treatment rather than a deterrent punishment which is "simple imprisonment for a term which may extend to one year [or with fine, or with both]". India has retained much of the colonial legal legacy in its penal jurisprudence.
- But the fact is that the British Parliament decriminalised attempts to suicide in 1961 through the Suicide
 Act. In India, a Bill to repeal Section 309 was first introduced in the Rajya Sabha in 1972 but it failed to pass
 in the Lok Sabha because the House was dissolved.
- Those who favour the penal provision generally quote the judgment in Gian Kaur V. State of Punjab (1996) where the court held that the "right to life is a natural right embodied in Article 21" of the Constitution but "suicide is an unnatural termination or extinction of life and, therefore, incompatible and inconsistent with the concept of right to life". In Aruna Ramchandra Shanbaug v. Union of India (2011), the Supreme Court endorsed the earlier judgment.
- On the other hand, those who argue that the act of attempting suicide should not be criminalised quote Maruti Shripati Dubal v. State of Maharashtra (1986). In this judgment, the Bombay High Court declared Section 309 unconstitutional. It said: "For example, the freedom of speech and expression includes freedom not to speak and to remain silent. The freedom of association and movement likewise includes the freedom not to join any association or to move anywhere... If this is so, logically it must follow that right to live... will include also a right not to live or not to be forced to live."
- o The court also said: "If the purpose of the prescribed punishment is to prevent the prospective suicides by deterrence, it is difficult to understand how the same can be achieved by punishing those who have made the attempts... Those who make the suicide attempt on account of the mental disorders require psychiatric treatment and not confinement in prison cells." This idea was recorded in **Chenna Jagadeeswar v. State of Andhra Pradesh and P. Rathinam v. Union** of India (1994) where the court held that Section 309 of the Indian Penal Code is a violation of Articles 14 and 21 and is void and unconstitutional.

A solution

- o In 2017, Parliament passed the **Mental Healthcare Act. Section 115 (1) of the Act provides**, "Notwithstanding anything contained in section 309 of the Indian Penal Code, any person who attempts to commit suicide shall be presumed, unless proved otherwise, to have severe stress and shall not be tried and punished under the said Code." However, this law applies only to those suffering from mental illness. There is presumption of severe stress in case of an attempt to die by suicide.
- But what if severe stress is not proved? We have to shift from penalising attempts to suicide to making such cases medico-legal ones and provide psychological or mental treatment and support to the persons affected. As the issue demands a reformative stance, we need a permanent solution like repealing Section 309 of the Indian Penal Code or striking it down.

GENDER TECHNOLOGY GAP

 According to Global System for Mobile Communications (GSMA) estimates, over 390 million women in lowand middle-income countries do not have Internet access. South Asia has more than half of these women with only 65% owning a mobile phone.



- o In India, only 14.9% of women were reported to be using the Internet. This divide is deepened by earlier mandates to register online to get a vaccination appointment. Recent local data revealed that nearly 17% more men than women have been vaccinated. While improving awareness of how to access vaccination and help are crucial to protecting women, the mindset around digital technology and device ownership must also change.
- o For example, **when families share a digital device**, it is more likely that the father or sons will be allowed to use it exclusively. In part, this is due to deeply held cultural beliefs: it is often believed that **women's access to technology will motivate them to challenge patriarchal societies.** There is also a belief that women need to be protected, and that online content can be dangerous for women/expose them to risks. As a consequence, girls and women who ask for phones face suspicion and opposition.
- These gaps prevent women and LGBTQIA+ people from accessing critical services. In India, Bangladesh and Pakistan, for example, fewer women than men received the necessary information to survive COVID-19.
 Vaccine registration usually requires a smartphone or laptop. Men and boys are thus more likely to get timely information and register than women and girls.
- The concept of feminism goes beyond the rights of women. It is about a way of life. In simple terms, it
 means being inclusive, democratic, transparent, egalitarian, and offering opportunities for all. We can call it
 equality through innovation.
- o Feminist technology (sometimes called "femtech") is an approach to technology and innovation that is inclusive, informed and responsive to the entire community with all its diversity.

Steps to an equitable future

- UN Women is encouraging companies to sign up and agree to principles that will lead to a more equitable
 future for all. As part of the Generation Equality Forum, the goal is to double the number of women and
 girls working in technology and innovation.
- o By 2026, the aim is to reduce the gender digital divide and ensure universal digital literacy, while investing in feminist technology and innovation to support women's leadership as innovators.
- Through digital empowerment programmes and partnerships such as EQUALS and International Girls in ICT Day celebration across the region led by UN Women and the International Telecommunication Union, it is hoped that more girls will choose STEM (science, technology, engineering, and mathematics) as their academic focus, enter digital technology careers, and aspire to be the next leaders in digital technology.

What would the world look like if technology were truly inclusive and reflected our society's needs? How would the world be different if feminist technology were embraced?

Hardly a neutral world

- What we see today is that most technologies that are available to the layperson are created by men, for men, and do not necessarily meet everyone's requirements. The supposedly neutral world of technology is full of examples of this: from video games to virtual assistants to the increasingly large dimensions of "handheld" smartphones, technology is not always made with everyone in mind.
- o Policy cannot solve this on its own, but the private sector can. Companies should not look at gender-equal technology solely from an altruistic perspective, but from a pragmatic one.
- According to GSMA, closing the gender gap in mobile Internet usage in low- and middle-income countries would increase GDP by U.S.\$700 billion over the next five years. Women and girls are the largest consumer groups left out of technology and could be major profit drivers.
- In the App Store, there are about two million apps, most of which cater to young men. Why not
 design apps geared specifically towards mothers or apps for women to access telemedicine consultation? Or
 digital networks to connect women to informal job opportunities so they can still earn while balancing caring



- for their families? Other than apps, built-in features on mobile phones such as an emergency button connecting women to law enforcement if they face unwanted street harassment should also be considered.
- Women and girls do not have the same access to these technologies as men and boys, nor are they available at the same price. That is not acceptable.
- There is no need to reinvent the wheel. In the 1950s, dishwashers and washing machines were promoted as a method of emancipating women. Household goods producers, for example, target most of their advertising at women because they often control the household budget. Digital technology could be approached similarly.
- Now is the time to act. The right thing to do is also the smart thing to do. Bringing an end to the gender technology gap will save lives and make livelihoods more secure. As a result, the next pandemic, once it arrives, may not be nearly as destructive. It can only lead to a better community and a better world for us all.





SECURITY

(Internal and External)

4 THREAT FROM DRONES

Two drones dropped an IED each packed with high grade-explosives on an Indian Air Force base in Jammu. It was the first-ever attack in India where suspected terrorists had used drones.

- Over the last one decade, drones, or unmanned aerial vehicles (UAVs), are being increasingly used for law and order, courier services, and surveillance and attack in the military domain.
 Modern drones are being used militarily since the 1990s, including by the US during the Gulf War.
- UAVs range from 250 g (maximum altitude 2,000 ft and range 2 km) to over 150 kg (300,00 ft and unlimited range).
- o In India, the most commonly known drones are quad- and hexacopters used for civil and commercial purposes, and Heron drones used for military surveillance. Different UAVs operate under various technologies ranging from remote control by a human operator to using GPS and radio frequencies, and autopilot assistance.



- According to Association of the US Army (AUSA), the first attempted drone attack by a terror group
 can be traced to 1994 when Aum Shinrikyo, a Japanese doomsday cult, used a remote-controlled helicopter
 to spray sarin gas, but failed as the helicopter crashed.
- In 2013, al-Qaeda attempted an attack in Pakistan using multiple drones but security forces prevented it.
 The Islamic State has regularly used drones for attacks in Syria and Iraq, while the Taliban has used them for surveillance in Afghanistan. Hezbollah and Houthi rebels too have used them for attacks.
- o In January 2018, a swarm of 13 drones attacked two Russian military bases in Syria. In August 2018, an assassination attempt was made on the President of Venezuela, Nicolãs Maduro, using two IED-carrying GPS-guided drones that exploded during a military ceremony the President was attending.
- According to AUSA, between 1994 and 2018, more than 14 planned or attempted terrorist attacks took place using drones. These have only increased in the last couple of years.
- o Last year, drones were used to counter traditional platforms like tanks in the Armenia-Azerbaijan war.

How to tackle them?

- The entire world is struggling with the problem of drone attacks. Conventional radar systems are not
 meant for detecting small flying objects, and, even if they are calibrated that way, they might confuse
 a bird for a drone and the system may get overwhelmed.
- o Currently, border forces in India largely use eyesight to spot drones and then shoot them down. It is easier said than done as most rogue drones are very small and operate at heights difficult to target.
- India has been exploring technologies to detect and disable drones using electromagnetic charge or shoot them down using laser guns. Technology to disable their navigation, interfere with their radio frequency, or just fry their circuits using high energy beams have also been tested. None of these has, however, proven foolproof.
- One would ideally like to have a tech wall that can disable drones coming from across the border. But drone attacks can be launched from within as well. Then there is the problem of swarm drones, where scores of drones overwhelm and confuse detection systems, resulting in some of the drones sneaking through," a security establishment officer said.



Does India have anti-drone technology?

- The Defence Research and Development Organisation (DRDO) has developed a **detect-and-destroy** technology for drones, but it is not yet into mass production. Then there is the challenge of the technology's strategic deployment and the money the government is ready to spend.
- The DRDO's Counter-Drone System was deployed for VVIP protection at the Republic Day parades in 2020 and 2021, the Prime Minister's Independence Day, and former US President Donald Trump's visit to Motera Stadium, Ahmedabad last year.
- o The DRDO system, developed in 2019, has capabilities for **hardkill** (destroying a drone with lasers) and **softkill** (**jamming a drone's signals**). It has a 360° radar that can detect micro drones up to 4 km, and other sensors to do so within 2 km. Its softkill range is 3 km and hardkill range between 150 m and 1 km.

What are India's plans to use them in warfare?

- The armed forces have been slowly inducting capacity. Last year the, Navy got two unarmed **SeaGuardian Predator** drones on lease from the US. The three forces want 30 of these UAVs between them.
- o The military has been working towards using small drones for offensive capabilities as well.

4 ENGAGING WITH TALIBAN

In a crucial policy shift, India recently acknowledged that it entered into backchannel communications with the Taliban in Afghanistan.

- o In early June, the media reported that India has started talking to certain factions and leaders of the armed group against the backdrop of the withdrawal of the United States forces from Afghanistan. A few days later, India's Ministry of External Affairs all but confirmed these reports, stating that "we are in touch with various stakeholders ... in pursuance of our long-term commitment towards development and reconstruction of Afghanistan".
- o The Taliban's Quetta-based leadership and Qatari officials have also confirmed these backchannel meetings.
- Ountil recently, India has been reluctant to openly communicate with the Taliban because it feared that such a move could damage its relations with the Afghan government and its powerful regional and global backers. While Indian intelligence officials have occasionally connected with Taliban fighters to protect India's interests over the years, most notably in 2011 to secure the release of kidnapped Indian engineers and personnel working in Afghanistan, India always refrained from establishing a permanent communication channel with the group.
- o It viewed the Taliban as nothing but a proxy for its main regional rival, Pakistan, and believed that it had little to gain from directly engaging the group. Moreover, India did not want to compromise its official policy of not talking to any "militant groups" by entering into a dialogue with the Taliban, as it believed that doing so would put it under increased pressure to start talking to Kashmiri rebel groups as well.

But much has changed in the past few years.

- o In **2015**, Iran and Russia started to support the Taliban to stop another armed group, the **Islamic State of Khorasan (ISK)**, from expanding its influence over Afghanistan. Knowing the limitations of Afghan security forces and the Taliban's operational strength, they opted to form a working relationship with the Taliban to contain the ISK.
- o Since then, the Taliban further established itself as a legitimate stakeholder in Afghanistan by gradually strengthening its diplomatic relations with the international community, scoring significant territorial gains against the Afghan government, and clinching a historic peace deal with the US in February 2020. It is now widely accepted that the Taliban will continue to have a significant influence over Afghanistan after the US completes its withdrawal from the country in September 2021.
- All this put India in a difficult position and forced it to rethink its approach to the armed group. In the end, it decided to form backchannel communications with relatively friendly factions of the Taliban to avoid losing strategic space to its regional rivals, especially Pakistan, after the US's withdrawal from Afghanistan.



- o In September 2020, IExternal Affairs Minister signalled India's country's interest in entering into a dialogue with the Taliban for the first time by participating in the intra-Afghan peace talks taking place in Doha via video link. This was the first time that high-ranking Indian officials attended an event in their official capacity alongside the representatives of the Taliban. Since then, Indian security officials started opening channels of communication with several Taliban factions that are perceived as being "nationalist" or outside the sphere of influence of Pakistan and Iran.
- o India has a lot to gain from these backchannel communications as it wants to protect its security interests and investments in Afghanistan after the US exit from the country. Particularly, it wants to make sure that Kashmir-focused armed groups such as Lashkar-e-Taiba and Jaish-e-Muhammad (JeM) do not use Afghanistan as a staging ground to launch attacks in the Indian-administered Kashmir. Having a backchannel with the Taliban can help the Indian authorities ensure that Afghanistan does not transform into a big security threat for India in the years to come.
- The Taliban can also gain a lot from a backchannel with India. The group will need significant outside help after the US's exit from Afghanistan to reach its development and reconstruction goals. India can provide this help in exchange for security guarantees.
- o India's outreach to the Taliban can also positively affect the ongoing Afghan peace process by minimising the possibility of an India-Pakistan proxy war in post-US Afghanistan. If India succeeds in establishing an informal bilateral relationship with the Taliban, Afghanistan can stay out of any skirmishes between India and Pakistan in the future and instead focus on its own domestic problems and struggles.
- But the success of India's backchannel communications with the Taliban will depend, at least partially, on Pakistan's response. At best, Pakistan will choose to stay neutral, neither encouraging nor discouraging such contacts. At worst, it will move to sideline elements within the Taliban known to be talking to India and discourage the armed group from communicating with New Delhi.
- While Pakistan's opposition will undoubtedly hinder the dialogue between the Taliban and India, it will not necessarily end it.
- The Taliban remained neutral in the face of India-Pakistan tensions over the revocation of Kashmir's semiautonomous status in August 2019, demonstrating that it wants to forge a foreign policy independent of Pakistan.
- While it is undoubtedly still highly dependent on Pakistan, its recent territorial gains against the Afghan government, growing financial independence and newly formed diplomatic ties with other influential members of the international community, gave the Taliban a certain level of independence. It is now positioned to become a political power accepted by the international community and it is slowly escaping Pakistan's grip.
- All this signals that the Taliban will continue to talk to India despite Pakistan's protestations. But only time
 will tell whether this dialogue will succeed in bringing much-needed security and stability to the region.

4 KRIVAK CLASS SHIPS

The Vice-Chief of the Naval Staff has inaugurated the construction of the second frigate of the Krivak or Talwar class. The construction of the first ship was laid in January, 2021. It would be delivered in 2026 and the second ship after six months.

- The Krivak class stealth ships are being built with technology transfer from Russia by Goa Shipyard Ltd. (GSL) under 'Make in India'. Engines for the ships are supplied by Ukraine.
- In October 2016, India and Russia signed an Inter-Governmental Agreement (IGA) for four Krivak or Talwar stealth frigates.





- The first two frigates will be built in Yantar Shipyard, in Kaliningrad, Russia. The following two will be built in GSL.
- The new Krivak frigates will have the same engines and armament configuration as Yantar's last three frigates - INS Teg, Tarkash and Trikand. These will be armed with BrahMos anti-ship and land attack missiles.

Use:

- They are primarily used to accomplish a wide variety of naval missions such as finding and eliminating enemy submarines and large surface ships.
- Existing Frigates: The navy already operates six Krivak III frigates. The first three joined the fleet between June 2003 and April 2004, followed by another three between April 2012 and June 2013. With the current contract, the navy will operate 10 Krivak frigates.

PINAKA ROCKETS

- Defence Research and Development Organisation (DRDO) successfully test fired extended range version of indigenously developed Pinaka rocket from a Multi-Barrel Rocket Launcher (MBRL) in June 2021 at Integrated Test Range (ITR), Chandipur off the coast of Odisha.
- Twenty-five Enhanced Pinaka Rockets were launched in quick succession against targets at different ranges.
 All the mission objectives were met during the launches. The enhanced range version of Pinaka Rocket
 System can destroy targets at distances up to 45 kms.
- o All the flight articles were tracked by Range instruments including Telemetry, Radar and Electro Optical Tracking System deployed by ITR & Proof and Experimental Establishment (PXE).
- The rocket system has been developed jointly by Pune based Armament Research and Development Establishment (ARDE) and High Energy Materials Research Laboratory (HEMRL) with manufacturing support from M/s Economic Explosives Limited, Nagpur. The development of Enhanced Pinaka system was taken up to achieve longer range performance.
- Pinaka is a multibarrel rocket launch (MBRL) system used by the Indian Army. Developed by the
 Defence Research and Development Organisation (DRDO), Pinaka integrates state-of-the-art technologies
 for delivering superior combat performance.
- Development of Pinaka commenced in 1986 at a Pune-based DRDO facility, known as Armament Research and Development Establishment (ARDE). DRDO was responsible for the overall design and development.
 The subsystems and components were developed by Tata Power SED, Larsen & Toubro and Ordnance Factories Board.

INDIAN NAVY and EU NAVAL FORCE EXERCISE

- The maiden Indian Navy and European Union Naval Force (EUNAVFOR) exercise was held in the Gulf of Aden.
- O INS Trikand, mission deployed for anti-piracy operations, participated in the exercise. Other warships included Italy's ITS Carabinere, the Spanish Navy's ESPS Navarra, and FS Tonnerre and FS Surcouf of France.
- The exercise saw high tempo-naval operations at sea, including advanced air defence and anti-submarine exercises, cross-deck helicopter operations, tactical manoeuvres, boarding operations, underway replenishment, search and rescue, man overboard drills, and other maritime security operations.





- The EUNAVFOR and the Indian Navy converged on multiple issues, including counter-piracy operations and protection of vessels deployed under the charter of World Food Programme.
- The two sides also have regular interaction through SHADE (Shared Awareness and De-confliction)
 meetings held annually in Bahrain. This engagement underscores the shared values as partner navies, in
 ensuring freedom of seas and commitment to an open, inclusive and a rules-based international order.

LINE OF ACTUAL CONTROL

The LAC is the demarcation that separates Indian-controlled territory from Chinese-controlled territory. India considers the LAC to be 3,488 km long, while the Chinese consider it to be only around 2,000 km. It is divided into three sectors: the eastern sector which spans Arunachal Pradesh and Sikkim, the middle sector in Uttarakhand and Himachal Pradesh, and the western sector in Ladakh.

What is the disagreement?

- o The alignment of the LAC in the eastern sector is along the 1914 McMahon Line, and there are minor disputes about the positions on the ground as per the principle of the high Himalayan watershed. This pertains to India's international boundary as well, but for certain areas such as Longju and Asaphila. The line in the middle sector is the least controversial but for the precise alignment to be followed in the Barahoti plains.
- The major disagreements are in the western sector where the LAC emerged from two letters written by Chinese Prime Minister Zhou Enlai to PM Jawaharlal Nehru in 1959, after he had first mentioned such a 'line' in 1956. In his letter, Zhou said the LAC consisted of "the so-called McMahon Line in the east and the line up to which each side exercises actual control in the west".
- Shivshankar Menon has explained in his book Choices: Inside the Making of India's Foreign Policy
 that the LAC was "described only in general terms on maps not to scale" by the Chinese.
- o After the 1962 War, the Chinese claimed they had withdrawn to 20 km behind the LAC of November 1959. Zhou clarified the LAC again after the war in another letter to Nehru: "To put it concretely, in the eastern sector it coincides in the main with the so-called McMahon Line, and in the western and middle sectors it coincides in the main with the traditional customary line which has consistently been pointed out by China".
- During the Doklam crisis in 2017, the Chinese Foreign Ministry spokesperson urged India to abide by the "1959 LAC".

What was India's response to China's designation of the LAC?

- o India rejected the concept of LAC in both 1959 and 1962.
- Even during the war, J.L. Nehru was unequivocal: "There is no sense or meaning in the Chinese offer to withdraw twenty kilometres from what they call 'line of actual control'. What is this 'line of control'? Is this the line they have created by aggression since the beginning of September?"
- o India's objection, as described by Menon, was that the Chinese line "was a disconnected series of points on a map that could be joined up in many ways; the line should omit gains from aggression in 1962 and therefore should be based on the actual position on September 8, 1962 before the Chinese attack; and the vagueness of the Chinese definition left it open for China to continue its creeping attempt to change facts on the ground by military force".

When did India accept the LAC?

- Shyam Saran has disclosed in his book How India Sees the World that the LAC was discussed during Chinese Premier Li Peng's 1991 visit to India, where PM P V Narasimha Rao and Li reached an understanding to maintain peace and tranquillity at the LAC.
- o India formally accepted the concept of the LAC when PM P V Narasimha paid a return visit to Beijing in 1993 and the two sides signed the Agreement to Maintain Peace and Tranquillity at the LAC. The reference to the LAC was unqualified to make it clear that it was not referring to the LAC of 1959 or 1962 but to the



LAC at the time when the agreement was signed. To reconcile the differences about some areas, the two countries agreed that the Joint Working Group on the border issue would take up the task of clarifying the alignment of the LAC.

Why did India change its stance on the Line of Actual Control?

- As per Menon, it was needed because Indian and Chinese patrols were coming in more frequent contact during the mid-1980s, after the government formed a China Study Group in 1976 which revised the patrolling limits, rules of engagement and pattern of Indian presence along the border.
- In the backdrop of the **Sumdorongchu standoff**, when PM Rajiv Gandhi visited Beijing in 1988, Menon notes that the two sides agreed to negotiate a border settlement, and pending that, they would maintain peace and tranquillity along the border.

Is the LAC also the claim line for both countries?

- Not for India. India's claim line is the line seen in the official boundary marked on the maps as released by the Survey of India, including both Aksai Chin and Gilgit-Baltistan.
- In China's case, it corresponds mostly to its claim line, but in the eastern sector, it claims entire Arunachal Pradesh as South Tibet. However, the claim lines come into question when a discussion on the final international boundaries takes place, and not when the conversation is about a working border, say the LAC.

But why are these claim lines controversial in Ladakh?

- o The eastern boundary was well defined in 1914 but in the west in Ladakh, it was not.
- A G Noorani writes in India-China Boundary Problem 1846-1947 that Sardar Vallabhbhai Patel's Ministry of States published two White Papers on Indian states. The **first, in July 1948, had two maps**: one had no boundary shown in the western sector, only a partial colour wash; the second one extended the colour wash in yellow to the entire state of J&K, but mentioned "boundary undefined". The second White Paper was published in February 1950 after India became a Republic, where the map again had boundaries which were undefined.
- o In July 1954, Nehru issued a directive that "all our old maps dealing with this frontier should be carefully examined and, where necessary, withdrawn. New maps should be printed showing our Northern and North Eastern frontier without any reference to any 'line'. The new maps should also be sent to our embassies abroad and should be introduced to the public generally and be used in our schools, colleges, etc". This map, as is officially used till date, formed the basis of dealings with China, eventually leading to the 1962 War.

How is the LAC different from the Line of Control with Pakistan?

- o The LoC emerged from the 1948 ceasefire line negotiated by the UN after the Kashmir War. It was designated as the LoC in 1972, following the Shimla Agreement between the two countries. It is delineated on a map signed by DGMOs of both armies and has the international sanctity of a legal agreement.
- The LAC, in contrast, is only a concept it is not agreed upon by the two countries, neither delineated on a
 map or demarcated on the ground.



HISTORY AND CULTURE

(Ancient; Medieval and Modern)

♣VIJAYNAGAR EMPIRE

- The Vijayanagara kingdom was founded by Harihara and Bukka of the Sangama dynasty in 1336.
- At the instance of their guru
 Vidyaranya, they established their kingdom with its capital at Vijayanagar.
- Harihara became the first ruler, and by 1346 the whole of Hoysala kingdom passed into the hands of the Vijayanagara rulers.
- Bukka succeeded his brother on the throne of Vijayanagara in 1336 and ruled till 1337. By 1337, the

Sultanate of Madurai had been annexed.



- The interests of the Vijayanagara rulers and the Bahamani kingdom which had come into existence in 1347, clashed in three separate and distinct areas: in the Tungabhadra doab, in the Krishna- Godavari delta and in the Marathwada country.
- o The beginning of the Vijayanagar-Bahmani conflict started on a large scale during the reign of Bukka I in 1367. He also sent an embassy to the Emperor of China. Under **Harihara II** (1377-1406) Vijayananara Empire embarked upon a policy of eastern expansion. He was able to maintain his position in the face of the Bahmani-Warangal combination. He invaded Ceylon.
- Deva Raya I (1406-22) was defeated by the Bahmani ruler Firoz Shah in 1407. He had to give his
 daughter in marriage to Firoz Shah. He defeated the Reddis of Kondavidu and recovered Udayagiri. In 1419,
 he defeated Firoz Shah.
- O Deva Raya II (1422-1446) was the greatest ruler of the Sangama dynasty. He began the practice of employing Muslims in the army. He was called Immadi Deva Raya. In his inscriptions he has the title of Gajabetekara (the elephant hunter). Dindima was his court poet. Abdur Razzak of Persia visited his kingdom. Deva Raya II is the author of two Sanskrit works Mahanataka Sudhanidhi and a commentary on the Brahmasutras of Badrayana.
- o There was confusion in the Vijayanagara Empire after the death of Deva Raya II. Since the rule of primogeniture was not established, there was a series of civil wars among the contenders. After some time, the throne was usurped by the king's minister Saluva Narsimha and the Saluva dynasty was established.

Saluva dynasty (1486-1505):

Vira Narsimha (1503-04) the regent of Immadi Narasimha, usurped the throne after his assassination and laid the foundation of the Tuluva dynasty in 1505.

Tuluva dynasty (1505-1570):

o Vira Narasimha had the title of Bhujabala (1505-09). After his brief reign, he was succeeded by his younger brother **Krishna Deva Raya (1509-30 A.D.)** who was the greatest ruler of the Vijayanagar Empire.



- Under him, Vijayanagara emerged as the strongest military power in the south. He defeated the rebellious chiefs of Ummattur, the Gajapatis of Orissa and Sultan Adil Shah of Bijapur.
- He successfully invaded Gulbarga and Bidar and restored the puppet Sultan Mahmud to the throne. To
 commemorate this act of restoration he assumed the title of Yavanarajya Sthapanacharya' (The restorer
 of the Yavana kingdom). He conquered almost the whole of Telangana from the Gajapati king Pratapraudra
 and the Sultan of Golcunda.
- Krishna Deva Raya maintained friendly relations with Albuquerque, the Portuguese governor whose ambassador Friar Luis resided at Vijayanagar. His relations with Portuguese were governed by two factors:
 (a) Common enmity with Bijapur.
 - (b) The supply of imported horses by the Portuguese to Vijayanagar.
- Krishna Deva Raya was also a great patron of art and literature, and was known as Andhra Bhoja. He was
 the author of the Telugu work Amuktamalyada and one Sanskrit work Jambavati Kalyanam. His
 court was adorned by the Ashtadiggajas (the eight celebrated poets), of whom, Allasani Peddana
 was the greatest.
- o His important works include Manucharitam and Harikatha Saramsamu. Krishna Deva Raya also built the famous temples of **Krishnaswamy**, **Hazara Ramaswamy** and **Vitthalaswamy** at his capital.
- Foreign travellers like Nuniz, Barbosa and Paes speak of his efficient administration and the prosperity of his empire.
- o After the death of Krishna Deva Raya, the struggle for succession followed among his relations. After the uneventful reigns of Achyuta Raya and Venkata, Sadasiva Raya ascended the throne in 1543. But the real power was in the hands of Rama Raja, the son-in law of Krishna Deva. The Bahmani rulers except Berar combined to inflict a crushing defeat on Vijayanagar in the Battle of Talikota or Rakshasa-Tangadi in 1565.
- This battle is generally considered to mark the end of the great age of Vijayanagara. Although the kingdom lingered on for almost one hundred years under the **Aravidu dynasty** founded by Tirumala Raya with its capital at Penugonda, it came it to an end in 1672.

♣VIJAYNAGAR EMPIRE- ARCHITECTURE

- Vijayanagar architecture is a vibrant combination of the Chalukya, Hoysala, Pandya, and Chola styles, which evolved from prior empires in earlier centuries. It is also influenced by later Deccan and Dravidian styles.
- Preferred for its durability, local **hard granite** was the building material of choice, as it had been for the Badami Chalukyas.
- Vijayanagar temples are characterized by ornate pillared halls and rayagopurams, or monumental towers adorned with life-sized figures of gods and goddesses that stand at the entrance of the temple.
- Vijayanagar temples are surrounded by strong enclosures and characterized by ornate pillared kalyanamandapa (marriage halls); tall rayagopurams (carved monumental towers at the entrance of the temple) built of wood, brick, and stucco in the Chola style; and adorned with life-sized figures of gods and goddesses. This dravida style became popular during the reign of Krishnadeva Raya and is seen in South Indian temples constructed over the next two centuries.
- Vijayanagar temples are also known for their carved pillars, which depict charging horses, figures from





Hindu mythology, and yali (hippogriphs). Some of the larger temples are dedicated to a male deity, with a separate shrine intended for the worship of his female counterpart. Some famous temples exemplifying the Vijayanagar style include the Virupaksha Temple at Hampi and the Hazara Rama temple of Deva Raya I.

o The courtly architecture of Vijayanagar is generally made of mortar mixed with stone rubble and often shows secular styles with Islamic-influenced arches , domes , and vaults .

↓VIJAYNAGAR EMPIRE- SCULPTURE

- The mingling of South Indian styles under the Vijayanagar Empire resulted in a richness not seen in earlier centuries, including a focus on reliefs and sculpture that surpassed that seen previously in India.
- Soapstone, which was soft and easily carved, was commonly used for reliefs and sculptures. To cover the unevenness of the stone, artists employed brightly painted plaster to smooth over and finish rough surfaces.
- Sculpture was integrally linked with architecture in the creation of Vijayanagar temples.
- Large life-size figures of men, women, gods, and goddesses adorn many Vijayagara temples, and temple pillars often have engravings of charging horses or hippogryphs (yali) and other elements of Hindu mythology.
- o Temple pillars often have engravings of charging horses or hippogryphs (yali)—horses standing on hind legs with their fore legs lifted and riders on their backs. The horses on some pillars stand seven to eight feet tall. On the other side of the pillar are often carvings from Hindu mythology.



Another element of the Vijayanagar style is the carving and consecration of large monolithic statues, such as the Sasivekalu Ganesha and Kadalekalu Ganesha at Hampi; the Gommateshvara (Bahubali) monoliths in Karkala and Venur; and the Nandi bull in Lepakshi. Examples of this style can also be seen in the Vijayanagara temples of Kolar, Kanakagiri, Shringeri and other towns of Karnataka; the temples of Tadpatri, Lepakshi, Ahobilam, Tirumala Venkateswara, and Srikalahasti in Andhra Pradesh; and the temples of Vellore, Kumbakonam, Kanchi, and Srirangam in Tamil Nadu.

↓VIJAYNAGAR EMPIRE- PAINTINGS

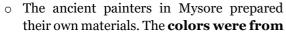
- o The Vijayanagar school of painting was renowned for its frescoes of Hindu mythological themes on temple walls and ceilings. The rulers of Vijayanagar encouraged literature, art, architecture, religious, and philosophical discussions. With the fall of the Vijayanagar empire after the Battle of Talikota in 1565 CE, the artists who were under royal patronage migrated to various other places such as Mysore, Tanjore, and Surpur.
- Absorbing the local artistic traditions and customs, the Vijayanagar school of painting gradually evolved into many styles of painting in South India, including the **Mysore and Tanjore schools of painting**.



 Mysore painting, an important form of South Indian classical painting, developed out of Vijayanagar painting and originated in the southern town of Mysore, in Karnataka, during the reign of the Vijayanagar emperors.

Characteristics of Vijayanagar Painting

- o Mysore paintings are known for their elegance, muted colors, and attention to detail.
- Popular themes include Hindu gods and goddesses and scenes from Hindu mythology.
- The paintings are characterized by delicate lines, intricate brush strokes, graceful delineation of figures, and the discreet use of bright vegetable colors and lustrous gold leaf. More than mere decorative pieces, the paintings are designed to inspire feelings of devotion and humility in the viewer. The painter's individual skill in giving expression to various emotions is therefore of paramount importance to this style of painting.





natural sources of vegetable, mineral, leaves, stones, and flowers. Brushes were made with squirrel hairs for delicate work, and for superfine lines, a brush made of pointed blades of a special variety of grass was used. Due to the long lasting quality of the earth and vegetable colors used, the original Mysore paintings still retain their freshness and luster even today.

Vijayanagar art includes wall paintings such as the Dashavatara (the Ten Avatars of Vishnu) and the Girijakalyana (the marriage of Parvati, Shiva's consort) in the Virupaksha Temple at Hampi; the Shivapurana murals (the Tales of Shiva) at the Virabhadra temple at Lepakshi; and those at the Kamaakshi and Varadaraja temples at Kanchi.

Manuscripts

- The most famous of the manuscripts detailing the various nuances of the Mysore school is the Sritattvanidhi, a voluminous work of 1500 pages prepared under the patronage of Mummadi Krishnaraja Wodeyar. This pictorial digest is a compendium of illustrations of gods, goddesses, and mythological figures with instructions to painters on an incredible range of topics concerning composition placement, color choice, individual attributes, and mood. The seasons, eco-happenings, animals, and plant world are also effectively depicted in these paintings as co-themes or contexts.
- Other Sanskrit literary sources such as the Visnudharmottara Purana, Abhilasitarthacintamani, and Sivatatvaratnakara also highlight the objectives and principles of painting, methods of preparing pigments, brushes, qualifications of the chitrakar (the traditional community of painters), and the technique to be followed.

♣BAHMANI SULTANATE

- o In 1347 AD, the Bahmani Kingdom rose to power under the Turkish Governor **Ala-ud-din Hassan Bahman Shah**, who revolted **against the Sultan of Delhi Sultanate**, **Muhammad Bin Tughlaq** and was favored by Nazir uddin Ismail Shah (who had revolted against the Delhi Sultanate).
- o The success of the revolt led to the establishment of an independent Deccan state with parts of the current day's Karnataka, Maharashtra, and Andhra Pradesh which were within the territory of Delhi Sultanate.
- Setting up the capital between 1347 AD and 1425 AD, in **Ahsanabad (Gulbarga)**, it was later moved to **Muhammadabad (Bidar)**.



Art and Culture under Bahmani Kingdom

- o The Bahmanis were enthusiasts of architecture and art and encouraged distinct styles with architects from different parts of the Muslim world and blended these with the local styles. Ala-ud-din Bahman built a large number of buildings including the Jama masjid and the Bala Hisar. The monuments of Gulbarga were also built and when the capital was shifted to Bidar and a large number of buildings were constructed which include the forts, palaces, mosques and tombs prominent among which are the Rangin Mahal, Gagan Mahal, Chini Mahal and Nagin Mahal (currently are in broken form).
- o The Persian scholar Mahmud Gawan (minister of Muhammad Shah III), built the well-known Madrasa in 1472 AD (building with three stories and has lecture halls, a library, a mosque and residential houses) which stands as a specimen of Bahmani architecture.
- The Bahmanis got many forts rebuilt and modified for their suitability in case of military requirements.
 These included the covered passages and bastions as an addition. Few forts were built at strategic places, keeping this structure in mind; some among these are the Gulbarga, Daulatabad, Gawilgarh, Narnala, Parenda, Raichur, etc.
- The architectural works also include idgahs (prayer houses) built at Daulatabad, Gulbarga, Bidar and Kovilkonda. Their special feature is the parapet cresting and a dome in the middle above the central prayer-niche. Prayer niches were also provided in the walls. However some exquisite tombs were also built that had features like a square configuration on a raised area with sloping walls which gives an impression of single mass, low flat domes, high and slender arched doorways, with the use of enameled tile work. Few of the significant tombs include the Ala-ud-din Hasan, Muhammad I and Muhammad II at Gulbarga and the tomb of Hazrat Zain-ud-din at Khuldabad.
- Another significant contribution to the architecture is the Ibrahim Rouza . 'Rouza' meaning garden was built by the ruler Ibrahim. The tomb is known for its minarets, stonework, calligraphic inscriptions, parapets, etc. and a blend of both northern and southern styles with distinct elements can be seen.
- o **Gumbaz** (the largest dome in the world) and Charminar in Hyderabad are also world-famous examples of Bahamani architecture.
- o An important heritage in the Indo-Islamic art was left by the Deccans, which included the language and Islamic tradition that spread in South India. Bahmani Kings patronized Hazrat Banda Nawaz (1321-1422 AD) the great Sufi saint (his dargah of Gulbarga is a pilgrimage to the Hindus and Muslims alike). He founded the Madrassa (institution) being a great scholar of Islamic wisdom, from his own funds on the line of universities of Samarkand and Khorasan.
- o Dakhani Urdu became the popular language, and Dakhani poetry flourished at the time.
- The Bahmanis patronised the Sufi saint Hazrat Banda Nawaz, and his dargah in Gulbarga is a still a pilgrimage site. The famous metal handicraft style of Bidri also comes from the Bahmanis: the term 'Bidri' originates from Bidar.

Disintegration

- o Constantly contesting the Vijyanagar Empire of Hindus, in the south, the power of sultanate reached its peak under Mahmud Gawan (serving as a prime minister and General to several sultans) during 1466-1481. He extended the empire by reconquering Goa which was under the Vijyanagar Empire. He also introduced administrative reforms and controlled many districts directly. His execution was ordered by a sultan and the Empire began collapsing after the sultan drank himself to death. The rampant Bahmani power was disintegrated by Krishna Dev Raya of Vijyanagar Empire
- The 16th century saw the Bahmani Kingdom fragment into smaller sultanates each governed by independent dynasty.
- The Nizam Shahis of Ahmed Nagar (1490-1633 AD): the Nizam Shahi kingdom was founded by Malik Ahmed Bahri and was later conquered by Shah Jahan (A.D. 1633).
- The **Adilshahis of Bijapur** (A.D. 1490-1686 AD): The kingdom of Bijapur was founded by Yusuf Adil Shah. The Gol Gumbaj, the tomb with world's second largest dome was built by Adil Shahi ruler Muhammad Adil Shah. It is also famous for its whispering gallery. This kingdom was later annexed by Aurangzeb.



Ibrahim Adil shah II wrote a book of songs called Kitab-i-Niwas in Dakhani Urdu; this contains a number of songs with different ragas.

- The **Imadshahis' of Berar** (1490-1574 AD): the Imadshahi kingdom was founded by Fatullah Khan imadul-mulk and it was conquered by one of the Nizam-Shahi rulers of Ahmadnagar.
- The **Qutubshahis of Golconda** (1518-1687 AD): Quli Qutub Shah founded the Qutubshahi dynasty and made Golconda his capital after building the famous Golconda fort. Another Qutubshahi ruler, Muhammad Quli Qutubshah, was the greatest of all and he founded the city of Hyderabad and built the Charminar in it. This kingdom was also later annexed by Aurangzeb. Muhammad Quli Qutb Shah wrote the Kulliyat-i-Muhammad Quli Qutb Shah in Dakhani urdu.
- The **Baridshahis of Bidar** (1528-1619 AD): Ali Barid founded the kingdom and it was later annexed by Adilshahis of Bijapur.





MULTIPLE CHOICE QUESTIONS

(50 MCQs)

Q1. Which of following statements is/are correct?

- 1. Joint Comprehensive Plan of Action (JCPO(A) was a bilateral nuclear deal between Iran and the U.S.
- JCPOA obliged Iran to accept constraints on its enrichment program verified by an intrusive inspection regime in return for a partial lifting of economic sanctions.

Choose the correct code:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Q2. Which of the following ports is not situated in Sri Lanka?

- (a) Hambantota
- (b) Sittwe
- (c) Kankesanthurai
- (d) Trincomalee

Q3. Tigray region lies in

- (a) Tunisia
- (b) Portugal
- (c) Italy
- (d) Ethiopia

Q4. Eritrea, Djibouti and Somalia border which of the following countries?

- (a) Ethiopia
- (b) South Sudan
- (c) Sudan
- (d) Kenya

Q5. Which of following statements is/are correct?

- 1. The European Union was created by the Stockholm Treaty.
- 2. The EU was awarded the Nobel Prize for Peace in 2012.

Choose the correct code:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Q6. Houthi rebels are associated with which of the following countries?

- (a) Syria
- (b) Iraq
- (c) Yemen
- (d) Somalia

Q7. Barents Sea lies in the

- (a) Arctic Ocean
- (b) North Atlantic

(c) North Pacific (d) None of the above

Q8. Consider the following statements:

- 1. The census in India had its beginning in 1872 under British Viceroy Lord Mayo.
- 2. The first complete census was undertaken in 1881.

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

Q9. Consider the following statements:

- 1. Cess is a form of tax charged/levied over and above the base tax liability of a taxpayer.
- 2. If the cess collected in a particular year goes unspent, it can be allocated for other purposes.

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

Q10. Consider the following statements:

- 1. A surcharge is an additional charge, tax, or payment that a company adds to the already existent cost of a good or service.
- 2. Surcharges are a way to indirectly pass costs on to the consumer.

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

Q11. Which of following statements is/are correct?

- 1. The Organization of the Petroleum Exporting Countries (OPEC) is a permanent, intergovernmental organization, created at the Tehran Conference.
- 2. OPEC is Headquarted in Caracas.

Choose the correct code:

- (a) 1 only
- (b) 2 only



(c) Both 1 and 2 (d) Neither 1 nor 2

Q12. Which of following statements is/are correct?

- 1. The non-OPEC countries which export crude oil are termed as OPEC plus countries.
- 2. Ecuador, Indonesia and Qatar are also the members of OPEC.

Choose the correct code:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Q13. Which of following statements is/are correct?

- 1. A cryptocurrency is a digital or virtual currency that is secured by cryptography, which makes it nearly impossible to counterfeit.
- 2. Cryptography is a method of protecting communications information and through the use of codes.

Choose the correct code:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Q14. Which of following statements is/are correct?

- 1. Technical Education Quality Improvement Programme (TEQIP) is the program of Ministry of Education.
- 2. TEQIP is funded by International Development Association (IDA).

Choose the correct code:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Q15. Which of following statements is/are correct?

- 1. Ministry of Education is planning to replace TEOIP with MERITE Project.
- 2. TEQIP aims to develop technical education as a key component for improving the quality of Engineering Education.

Choose the correct code:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Q16. Which of following statements is/are correct?

- 1. Transgender people are people whose gender identity is different from the gender they were thought to be at birth.
- 2. Gender identity and sexual orientation are similar things.

Choose the correct code:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2 (d) Neither 1 nor 2

Q17. Which of following statements is/are correct?

- 1. PDS is the food security system under the Ministry of Agriculture.
- State level corporations procure and maintain PDS.

Choose the correct code:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Q18. Which of following statements is/are correct?

- Overseas Citizenship of India (OCI) is a form of permanent residency available to people of Indian origin and their spouses which allows them to live and work in India indefinitely.
- 2. OCI status grants the right to vote in Indian elections.

Choose the correct code:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Q19. Which of following statements is/are correct?

- 1. Chilika Lake was designated the first of Indian wetland international importance under the Ramsar Convention.
- 2. Chilika Lake lies at the mouth of the Daya River.

Choose the correct code:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Q20. Simplipal National Park lies in

- (a) Karnataka
- (b) Maharashtra
- (c) Chhattisgarh
- (d) Odisha



Q21. Maguri Motapung wetland is situated in

- (a) Assam
- (b) Meghalaya
- (c) Arunachal Pradesh (d) Tripura

Q22. Which of following statements is/are correct?

- 1. Himalayan serow resembles a cross between a goat and an antelope.
- 2. Species of serows are found in Europe and Asia.

Choose the correct code:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Q23. Which of following statements is/are correct?

- 1. ISRO started as Indian National Committee for Space Research (INCOSPAR).
- 2. ISRO operates under Department of Space (DOS).

Choose the correct code:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Q24. Which of following statements is/are correct?

- 1. ShadowPad is a backdoor Trojan malware.
- 2. ShadowPad opens a secret path from its target system to its command-and-control servers. Information can be extracted or more malicious code delivered via this path.

Choose the correct code:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Q25. Pochampally sarees belongs to the state of

- (a) Kerala
- (b) Tamil Nadu
- (c) Telangana
- (d) Odisha

Q26. Which of the following countries does not border Afghanistan?

- (a) Kyrgyzstan
- (b) Uzbekistan
- (c) Tajikistan
- (d) Turkmenistan

Q27. Uighur is the province in

- (a) Myanmar
- (b) Mongolia
- (c) China
- (d) Thailand

Q28. Which of the following counties does not lie in the Indo-Pacific region?

- (a) Chile
- (b) Peru
- (c) Mexico
- (d) Uruguay

Q29. Which of the following countries does not border Kuwait?

- (a) UAE
- (b) Saudi Arabia
- (c) Iraq
- (d) None of the above

Q30. Which of the following countries does not border Jordan?

- (a) Iraq
- (b) Turkey
- (c) Syria
- (d) Israel

Q31. Agaba is the port of

- (a) Israel
- (b) Syria
- (c) Lebanon
- (d) Jordan

Q32. How is Money Bill different from a Financial Bill?

- 1. A Money Bill includes all the aspects of the budget, whereas Financial Bill is only an Ordinary Bill.
- 2. A Money Bill shall be introduced only in the Lok Sabha, whereas a Financial Bill can be introduced in either House of the Parliament.
- 3. A Money Bill cannot be rejected by the Rajya Sabha, whereas a Financial Bill can be rejected by the Rajya Sabha.

Choose the correct code:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) All of the above are true

Q33. Which of the following categories of bills require prior consent of the President before their introduction?

- 1. Bills to re-organise states.
- 2. Bills affecting taxes in which the states are interested.
- 3. State bills imposing restrictions on freedom of trade.



4. Bills involving expenditure from the Consolidated Fund of India.

Select the correct answer from the given options

- (a) 1, 2 and 4 only (b) 1, 2 and 3 only
- (c) 2, 3, and 4 only (d) All of the above

Q34. Rakhine state of Myanmar borders

- (a) Mizoram
- (b) Tripura
- (c) Nagaland
- (d) None of the above

Q35. Consider the following statements:

- 1. The Election Commission of India is a three-member body.
- 2. Union Ministry of Home Affairs decides the election schedule for the conduct of both general elections and bye-elections.
- 3. Election Commission resolves the disputes relating to splits/mergers of recognised political parties.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 only
- (c) 1 and 3 only
- (d) 3 only

Q36. Which of following statements is/are correct?

- 1. The State Election Commission has been entrusted with the function of conducting free, fair and impartial elections to the local bodies in the state.
- 2. Article 263K(1): It states that the superintendence, direction and control of the preparation of electoral rolls for, and the conduct of, all elections to the Panchayats shall be vested in a State Election Commission.

Choose the correct code:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Q37. Which of following statements is/are correct?

- 1. Substandard assets are assets which has remained NPA for a period less than or equal to 12 months.
- 2. Doubtful assets would be classified as doubtful if it has remained in the substandard category for a period of 12 months.

Choose the correct code:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Q38. Which of following statements is/are correct?

- 1. OPEC+ is a group of 24 oil-producing nations, made up of the 14 members of the Organization of Petroleum Exporting Countries (OPEC), and 10 other non-OPEC members.
- 2. The OPEC bloc is nominally led by Saudi Arabia, the group's largest oil producer, while Russia is the biggest player among the non-OPEC countries.

Choose the correct code:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Q39. Which of following statements is/are correct?

- 1. The Prompt Corrective Action (PC(A) framework deems banks as risky if they slip below certain norms on three parameters capital ratios, asset quality and profitability.
- 2. PCA has four risk threshold levels (1 being the lowest and 4 the highest).

Choose the correct code:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Q40. Which of following statements is/are correct?

- 1. FPO is a Farmer Producer Company registered Indian company in the Registrar of Companies (ROC).
- 2. SFAC is the pioneer in the formation of FPOs.

Choose the correct code:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Q41. Consider the following statements about the 8 core industries of Index of Industrial Production (IIP)

- 1. Their combined weight in IIP exceeds 50%.
- 2. Refinery products have the maximum weight in IIP out of the 8 core industries.



Which of the above statements is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Q42. Which of the following statements is/are correct?

- 1. Stagflation is characterised by slow economic growth and high unemployment.
- 2. Skewflation is price rise of a small group of commodities over a sustained period of time.
- 3. Hyperinflation is a large and accelerating inflation that takes place over a very short period of time.

Select the correct answer using the code given below:

- (a) 2 only
- (b) 2 and 3 only
- (c) 1 and 2 only
- (d) 1, 2 and 3

Q43. Which of following statements is/are correct?

- 1. Integrated Child Development Services (ICDS) provides food, preschool education. primary healthcare. immunization, health check-up and referral services to children under 6 years of age and their mothers.
- 2. ICDS was launched in 1995.

Choose the correct code:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Q44. Which of following statements is/are correct?

- 1. For PDS, the Central Government through FCI, has assumed responsibility for procurement, storage, transportation and bulk allocation of food grains to the State Governments.
- 2. Identification of eligible families, issue of Ration Cards and supervision of the functioning of Fair Price Shops (FPSs) etc., rest with the State Governments.

Choose the correct code:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Q45. Raidak River is the tributary of

- (a) River Godavari (b) River Krishna
- (c) River Cauvery (d) River Brahmaputra

Q46. Ramagundam power project is situated in

- (a) Telangana
- (b) Tamil Nadu
- (c) Andhra Pradesh (d) Kerala

Q47. Which of following statements is/are correct?

- 1. Benzene molecule is composed of six carbon atoms joined in a planar ring with one hydrogen atom attached to each.
- 2. Benzene is classed as a hydrocarbon.

Choose the correct code:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Q48. Which of following statements is/are correct?

- 1. Adenoviruses cause fever, coughs, sore throats, diarrhea, and pink eye.
- 2. Infections happen in adults more often than in children.

Choose the correct code:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Q49. Which of the following seas are connected by Strait of Bab-el -Mandeb?

- (a) Red Sea and Gulf of Aden
- (b) Red Sea and Mediterranean Sea
- (c) Gulf of Aden and Arabian Sea
- (d) Persian Gulf and Arabian Sea

Q50. Dugm Island is located near the coast of which of the following?

- (a) Arabian Sea
- (b) Mediterranean Sea
- (c) South China Sea
- (d) Gulf of Munnar



ANSWERS

1	2	3	4	5	6	7	8	9	10
b	b	d	a	b	c	a	c	a	c
11	12	13	14	15	16	17	18	19	20
d	a	c	b	c	a	d	a	c	d
21	22	23	24	25	26	27	28	29	30
a	a	c	c	c	a	c	d	a	b
31	32	33	34	35	36	37	38	39	40
d	b	d	d	c	a	c	c	a	с
41	42	43	44	45	46	47	48	49	50
b	d	a	c	d	a	С	a	a	a







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