

JANUARY 2021

Targeted

CURRENT AFFAIRS

and Issues Update

MIDDLE EAST: CHANGING DYNAMICS

FARMERS PRODUCER ORGANISATION (FPO)

LABOUR REFORMS

BASIC EXCHANGE AND COOPERATION AGREEMENT (BECA)

SOCIAL AUDIT



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The magazine also presents a practice set of 50 Multiple Choice Questions (MCQs).

The entire coverage is exam oriented hence all the current affairs and issues have been selected and presented in a targeted manner.

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Go through it.

**SHIELD IAS
CONTENT TEAM**

TABLE OF CONTENTS



INTERNATIONAL RELATIONS

- MIDDLE EAST: CHANGING DYNAMICS ... 5
- CHINA'S INCREASING DOMINANCE ...6
- ILO CONVENTIONS ...8
- MULTILATERALISM ...9
- SRILANKA: 13th CONSTITUTIONAL AMENDMENT...11
- UNSC ...12
- KYRGYZSTAN ...13



GEOGRAPHY AND ENVIRONMENT

- LANDSLIDES ...15
- KALESHWARAM LIFT IRRIGATION PROJECT ...17
- DECLINE IN SPECIES ...17
- CHEETAH ...18
- BARN OWL ...19
- BHADHUT PROJECT ...20
- WESTERN DISTURBANCE ...20
- REGENERATIVE AGRICULTURE ...21
- BIOLOGICAL DISASTER ...22



SCIENCE AND TECHNOLOGY

- SALINITY GRADIENT ENERGY ...23
- INTERNET OF THINGS ...23
- PULSE OXIMETER ...24
- CHOANOFLAGELLATES ...25
- IN-SPAcE ...25
- INTERNET GOVERNANCE ...27
- CRISPR - Cas9...27



INDIAN POLITY

- NALSA ...29
- LOK ADALATS ...30
- ANGLO-INDIANS ...30
- PRIVY PURPOSE ...31
- LOKPAL ...32
- NCLAT ...33
- NATIONAL HUMAN RIGHTS COMMISSION ...34
- OHCHR ...35
- E-COURT MISSION MODE PROJECT ...35



ECONOMY

- FARMERS PRODUCER ORGANISATION (FPO)...37
- CODE ON SOCIAL SECURITY BILL, 2020...38
- CODE ON WAGES, 2019...39
- INDUSTRIAL RELATIONS (IR) CODE BILL ...40
- OCCUPATIONAL SAFETY, HEALTH AND WORKING CONDITIONS CODE BILL ...42
- TRADE AGREEMENTS ...42
- BANKING TERMS ...43
- FOREX RESERVES ...44
- EXCHANGE TRADED FUND (ETF)...44
- WTO: DISPUTE SETTLEMENT MECHANISM ...45
- INCLUSIVE GROWTH ...45
- STAND-UP INDIA SCHEME...47
- FISCAL DEFICIT ...47
- LONG TERM REPO OPERATIONS ...48
- NATIONAL TECHNICAL TEXTILES MISSION ...49
- RUPEE DEPRECIATION ...49
- GEOGRAPHICAL INDICATION (GI) TAG ...50



SOCIETY

- FEMALE FOETICIDE AND INFANTICIDE ...51
- LEARNING POVERTY ...54
- TRANSGENDER PERSONS (PROTECTION OF RIGHTS) ACT...55
- MENTAL DISORDER ...56
- DIFFERENTLY ABLED ...57
- SOCIAL AUDIT ...59



SECURITY

- FATF...61
- NERVE AGENT NOVICHOK ...61
- MARITIME STRATEGY ...62
- BASIC EXCHANGE AND COOPERATION AGREEMENT (BECA)...63
- SUBMARINE OPTICAL FIBRE CABLE ...64



HISTORY AND CULTURE

- GURU NANAK ...66
- GURU GOBIND SINGH ...66
- DARA SHIKOH ...66
- MAHARAJA RANJIT SINGH ...67

- ISHWARCHANDRA VIDYASAGAR ...67
- SAINT THIRUVALLUVAR ...68
- SHREE NARAYAN GURU ...68
- BHAGAT SINGH ...68

UPSC PRELIMS 2021

- BHIM RAO AMBEDKAR ...69

MULTIPLE CHOICE QUESTIONS

50 MCQs...71

Test Release Schedule...77

INTERNATIONAL RELATIONS

(Geopolitics; India and the World; India and its Neighbourhood)

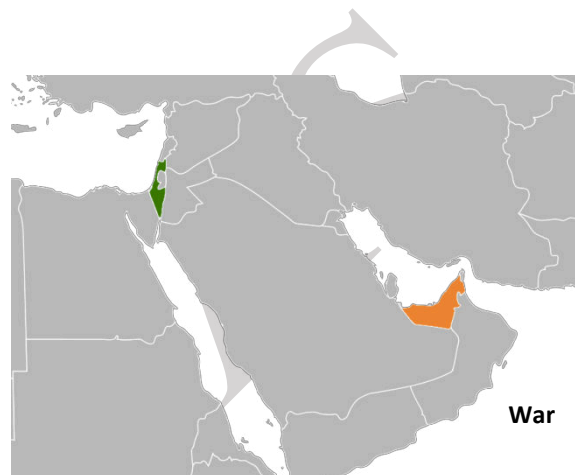


MIDDLE EAST: CHANGING DYNAMICS

In an unexpected move, Israel is moving towards better ties in the Gulf region. For example, UAE and Israel have agreed to establish full diplomatic ties as part of a deal to halt the annexation of occupied land by Israel sought by the Palestinians for their future state. Qatar and Bahrain are also trying to engage with Israel.

■ Background

- Arab-Israeli ties have historically been conflict-ridden. Arab countries, including Egypt, Transjordan, Syria and Iraq, fought their first war with Israel in 1948 after the formation of the state of Israel was announced. The war ended with Israel capturing more territories, including West Jerusalem, than what the UN Partition Plan originally proposed for a Jewish state.
- After that, Israel and Arab states fought three more major wars — the **1956 Suez conflict**, the **1967 Six-Day War** and the **1973 Yom Kippur War**.



■ Main initiatives undertaken since the 1967 Middle East War for normalising the relations:

- **1967 – UN Security Council Resolution 242:** After the Six-Day War, U.N. Security Council Resolution 242 called for the “withdrawal of Israeli armed forces from territories occupied in the recent conflict” in return for all states in the area to respect each other’s sovereignty, territorial integrity and independence.
- **1978 – Camp David agreement:** Israel and Egypt agree on a framework for regional peace that called for an Israeli withdrawal in stages from Egypt’s Sinai and a transitional Palestinian government in the West Bank and Gaza.
- **1979 – Israeli-Egyptian peace treaty:** The first peace treaty between Israel and an Arab country set out plans for a complete Israeli withdrawal from Sinai within three years.
- **1994 – Israel-Jordan agreement:** Jordan became the second Arab country to sign a peace treaty with Israel.
- **1993-1995 – Oslo Accords:** Israel and the PLO hold secret talks in Norway that resulted in interim peace accords calling for the establishment of a Palestinian interim self-government and an elected council in the West Bank and Gaza for a five-year transitional period, Israeli troop withdrawals and negotiations on a permanent settlement.
- **2002-2003 – Bush Declaration/Arab peace initiative/Road Map:** George W. Bush became the first U.S. president to call for the **creation of a Palestinian state**, living side-by-side with Israel “in peace and security”.
- **2002 – Saudi Arabia presents Arab League-endorsed peace plan** for full Israeli withdrawal from occupied territory and Israel’s acceptance of a Palestinian state in return for normal relations with Arab countries. The United States, the European Union, the United Nations and Russia present their own roadmap to a **permanent two-state solution to the conflict**.
- **2019:** Israeli PM says he intends to annex West Bank settlements, and much of the Jordan Valley, if elected. Later, U.S. Secretary of State Mike Pompeo effectively backs Israel’s claimed right to build Jewish settlements in the occupied West Bank by abandoning a four-decade-old U.S. position that they were inconsistent with international law.

▪ **The details of the deal are: -**

- Israel and the UAE will set to finalise bilateral ties and cover areas of investment, tourism, the establishment of direct flights, security, telecommunications, technology, energy, healthcare, cultural exchange, environmental issues, and the establishment of embassies, in addition to other areas of cooperation. The joint statement mentioned that Israel and the UAE would also be “forging closer people-to-people relations”. On priority, Israel and UAE will work together to find a treatment and a vaccine for Covid-19.
- It commits Israel to give up a stated plan to annex parts of the occupied the West Bank, which the Palestinians view as the heartland of their future state.
- Israeli Prime Minister Benjamin Netanyahu had earlier vowed to annex the Jewish settlements in the West Bank. The Trump administration, as part of the President’s peace plan, had backed the annexation plan despite international criticism. But now, as part of the agreement, Israel “will suspend declaring sovereignty over areas” of the West Bank and “focus its efforts on expanding ties with other countries in the Arab and Muslim world”.

▪ **Probable reasons for this deal**

- **The Iran factor:** The old enmity between Arab countries and Israel has dissipated. The Sunni Arab kingdoms in the Gulf region such as Saudi Arabia and the UAE had developed backroom contacts with Israel over the past several years. One of the major factors that brought them closer has been their shared antipathy towards Iran because -

- Iran is a Shia nation.
- Iran is also a military power
- Iran is in the process of developing military technology

The UAE’s large reserves of oil have made it the second largest economy in the Middle East, and that has allowed it to grow its military and economic might enough to play an influential role in the region. Over the past two decades, the UAE has also focused on curbing Iran and Islamic militancy.

- **The security concern:** Rise of Islamic State in Syria and Iraq. Iran has already targeted Saudi civilians with missiles launched by its proxy forces in Iraq and Yemen
- **Making the cancellation of Iran nuclear deal irreversible**
- Both these blocs were wary of U.S. President Barack Obama’s Iran outreach.
- A formal agreement and enhanced security and economic ties make the Arab and Israeli sides better prepared to face such a situation. So, there is a convergence of interests for the UAE, Israel and the U.S. to come together in the region. They want to ensure that coming out of Iran nuclear deal is irreversible.
- **Growing slow and sustainable ties**
- Israelis and Emiratis have shared intelligence initiatives to counter Iranian influence. When Mr. Trump became the President, his administration brought these two blocs of West Asia, both American allies, together.
- In February 2019, the U.S. brokered a security conference in Warsaw to build a global strategy against Iran.
- Following this conference, in August 2019, the U.S. arranged secret talks between the UAE and Israel. These meetings laid the foundations for the agreement.
- **Israeli PM in a fix:** Netanyahu, who faced mass protests for weeks against his mishandling of the coronavirus outbreak, a drop in popularity in his country, and is on trial for corruption, may be banking on this agreement to revive his image. As Prime Minister Netanyahu said, Israel made peace with an Arab country without “our returning to the 1967 borders”.

CHINA’S INCREASING DOMINANCE

In the COVID-19 world scenario, China has been becoming increasingly aggressive in its pursuit of dominance worldwide.

▪ **China's expansionists pursuits since 1970s**

- China is clearly more feared than loved (exception Pakistan) no Asian country has any doubt about China's 'imperialist ambitions', or about Chinese President Xi Jinping's authoritarian world view.
- China's takeover of Hong Kong, rampant land grab in the **South China sea** – an expedition which started in the 1970s. In the 1970s, China grabbed control over the Paracel Islands from Vietnam. In the 1990s, it occupied Mischief Reef in the Spratly Islands, an area of the South China Sea that the Philippines had always considered its territory.
- In the 21st Century, China has continued with the same tactics of taking control over territories belonging to smaller neighbours; one which attracted international attention was the Scarborough Shoal confrontation in 2012, when Chinese Marine Surveillance Ships came into direct confrontation with the Philippine Navy.
- China's expansionist attitude extends beyond South China Sea and Taiwan, Japan, Vietnam, Indonesia and South Korea have all complained about China's expansionist appetite. So, hardly any country in Asia is willing to openly confront China, and side with the U.S.
- Neither the presence of U.S. aircraft carriers in the South China Sea, the presence of China's missile sites in recently reclaimed areas, or the wariness that most Association of Southeast Asian Nations display vis-à-vis China, has been enough to make countries in the region openly side with the U.S. and against China.
- Meanwhile, China is determined to press home its advantage, irrespective of international law or regional concerns.



▪ **China remains unfazed despite sanctions from West**

- What is specially disconcerting is that despite a series of diktats from Washington to restrict economic and other relations with China, the United Kingdom's decision to end reliance on Chinese imports and call off its Huawei 5G project, and growing anti-China sentiments heard across Europe — all of which make for good copy — China remains unfazed.
- China seems confident that its stranglehold on the global economy ensures that it does not face any real challenge.
- It would be wise for India to recognise that China maintains a strong grip over global economy.
- It is equally necessary to realise how fickle some of these countries can be when it comes to economic issues. Australia is a prime example. Australia made it clear that China is important for Australia, that it would not do anything contrary to its interests, and a strong economic engagement was an essential link in the Australia-China relationship.
- Likewise, the U.K.'s Secretary of State for Foreign and Commonwealth Affairs, stated in its Parliament, that the U.K. wants a positive relationship with China, would work with China, and that there was enormous scope for positive constructive engagement.
- It is thus more than evident that few nations across the world are willing to risk China's ire because of strong economic ties that have been forged over the years.
- Economic ties are proving way stronger than military and strategic ones.

- Even in Asia, while a majority of ASEAN countries have grave concerns about China's predatory tactics, with the ASEAN having become one of China's biggest trading partners, it adopts a default position. viz., "not to take sides".

▪ India's dilemma

- At this time, when the dice should actually have been loaded against China, it is India that is finding many of its traditional friends being less than helpful.
- While India's relations with Pakistan had nowhere to go but downhill, India's present stand-off with China has provided Pakistan with yet another opportunity to fish in troubled waters, including the production of a "fake map" of Pakistan, which includes parts of Indian territory such as Siachen, Jammu and Kashmir and Gujarat.
- India's relations with Nepal, meanwhile, have hit a road block. Relations have soured in recent months, and Nepal has gone to the extent of publishing new maps which show the 'Kalapani area' as a part of Nepal.
- In Sri Lanka, the return of the Rajapaksas to power after the recent elections does not augur too well for India-Sri Lanka relations.
- It is, however, the strain in India-Bangladesh relations (notwithstanding the warm relationship that exists between Bangladesh Prime Minister Sheikh Hasina and Indian leaders), that is a real cause for concern, since it can provide a beachhead against Chinese activities in the region.

▪ China Moves Ahead

- China is, meanwhile, busy 'stirring the pot' elsewhere in South Asia.
- Last year, Chinese Foreign Minister Wang Yi organised a virtual meeting of the Foreign Ministers of Nepal, Afghanistan and Pakistan,. Here, he proposed taking forward an **economic corridor plan with Nepal**, styled as the **Trans-Himalayan Multi-Dimensional Connectivity Network**, and expanding the China-Pakistan Economic Corridor (CPEC) to Afghanistan, touting benefits of new economic corridors on the lines of the CPEC.
- China has also made headway in Iran to an extent, again at India's expense. Iran and China are reported to be currently pursuing an economic and security partnership that would involve massive Chinese investments in energy and other sectors in Iran, in exchange for China receiving regular supplies of Iranian oil for the next 25 years.
- China has also dexterously positioned itself to circumvent India's monopoly over the Chabahar Port, by providing a munificent aid package for the Chabahar-Afghanistan Rail link, thereby undercutting India's offer of aid and assistance for the rail project.

ILO CONVENTIONS

ILO Convention No. 182 achieved universal ratification.

- The two ILO Conventions on child labour are **Convention No.138 on Minimum Age** and **Convention No. 182 on the Worst Forms of Child Labour**. These Conventions are "**fundamental**" Conventions.
- This means that, under the ILO Declaration on Fundamental Principles and Rights at Work, all ILO member States have an obligation to respect, promote and realize the abolition of child labour, even if they have not ratified the Conventions in question.
- **ILO Convention No. 182 is the first ILO Convention to achieve universal ratification.** It was also the most rapidly ratified Convention in the history of the ILO, with the majority of ratifications occurring within the first 3 years after it was adopted in 1999. ILO Convention No. 138 has also been widely ratified by ILO member States.
- A majority of countries have now adopted legislation to prohibit or place severe restrictions on the employment and work of children, much of it following ratification of the child labour Conventions.

- In spite of these efforts, child labour continues to exist on a massive scale, sometimes in appalling conditions, particularly in the developing world. This is because child labour is an immensely complex issue. It cannot be made to disappear simply by the stroke of a pen.
- Nevertheless, the basis of determined and concerted action must be legislation, which sets the total elimination of child labour as the ultimate goal of policy, and puts measures into place for this purpose, and which explicitly identifies and prohibits the worst forms of child labour to be eliminated as a matter of priority.
- India has ratified both the conventions.

▪ **Convention No. 182 on the Worst Forms of Child Labour comprise of:**

- ✓ all forms of slavery or practices similar to slavery, such as the sale and trafficking of children, debt bondage and serfdom and forced or compulsory labour, including forced or compulsory recruitment of children for use in armed conflict;
- ✓ the use, procuring or offering of a child for prostitution, for the production of pornography or for pornographic performances;
- ✓ the use, procuring or offering of a child for illicit activities, in particular for the production and trafficking of drugs as defined in the relevant international treaties;
- ✓ work which, by its nature or the circumstances in which it is carried out, is likely to harm the health, safety or morals of children.

MULTILATERALISM

In international relations, multilateralism refers to an alliance of multiple countries pursuing a common goal.



▪ **How does it helps?**

- Multilateralism, in the form of membership in international institutions, serves to

- ✓ Bind powerful nations
- ✓ Discourage unilateralism
- ✓ Gives small powers a voice and influence that they could not otherwise exercise. For a small power to influence a great power, the **Lilliputian strategy** of small countries banding together to collectively bind a larger one can be effective.

- ✓ Similarly, multilateralism may allow one great power to influence another great power. For a great power to seek control through bilateral ties could be costly; it may require bargaining and compromise with the other great power.

Global community adopted the Multilateralism post WWII, in the form of UNO. But it has been seen that the importance of UN has been eroding owing to the **Challenge to multilateralism**

Challenge due to increasing Nationalism:

- The U.S. has increasingly grown vociferous in its opposition of UN. The U.S., which created the international system as we know today, is no longer willing to be its “guarantor of last resort.”
- Brexit has shown that nationalism remains strong in Europe. It has delivered a blow to the idea of Europe, united and whole.
- And the challenge to multilateralism is coming not from the have-nots, but the main stakeholders of the system.

The rise of China and its emphasis on Bilateralism

- China has stepped in to take advantage of the West’s retreat from multilateralism.
- But China’s assertion of a role on the world stage is not an embrace of the idea of multilateralism.
- Its flagship Belt and Road Initiative consists of a series of bilateral credit agreements with recipient countries with no mechanism for multilateral consultation or oversight. Curiously, President Xi Jinping’s speech at the UN General Assembly did not mention it. The European Union’s and U.S.’s sanctions against Russia have driven it closer to China.

Issues with UNO and its organizations

- The **rift between the permanent members of the Security Council** has already started affecting the work of the UN Security Council.
- The **World Health Organization** failed to provide early warnings.
- The WTO has failed to conclude the **negotiations of the Doha Agenda** started in 2001, as bilateralism and protectionism are resurging worldwide, and its dispute settlement system has stalled.
- The complex **architecture of arms control** set up at the end of the Cold War is threatened by the dismantling of the Iran nuclear deal. Multilateral efforts to address climate change have made symbolic progress at best.
- The **governance of the internet** is forfeiting its initial aspiration of a borderless knowledge society as a few private companies are hoarding data exponentially and authoritarian states are misusing it as a tool of surveillance and repression.

Issue of Finances

- **UN is a large organization with offices scattered around the globe. And to be effective, they need a lot of resources.**
- Example - UN Peacekeeping forces:
 - Around 40 UN political missions and peacekeeping operations engage 95,000 troops, police, and civil personnel. But the UN peacekeeping budget, is just a little over \$8 billion
 - If you compare it with annual military spending of nations: USA (\$ 650 Billion).
- **Even the required amount is not allocated and hence it suffers from a paucity of resources.**
- There was an outstanding assessed contribution of \$1.7 billion for peacekeeping activities by the end of the financial year.
- Similarly, there was an outstanding \$711 million in the assessed contribution for the general budget.
- **Not only that, most of the humanitarian assistance, developmental work, and budgets of the specialised agencies are based on voluntary contributions.**

- There are calls for increasing public-private partnerships. This is not a satisfactory arrangement. The UN provides 'public goods' in terms of peace and development often in remote parts of the world. There may not be enough appetite on the part of corporations. The UN remains an inter-governmental body.
- The danger, ultimately, is that without a shared normative ground for collaboration and collective action going beyond mere pragmatic alliances, global governance risks relapsing into a neo-Hobbesian state of nature characterised by a dangerous cocktail of confrontational politics, zero-sum games, and neoliberal concentration of power in the hands of a few. Such a scenario would eventually forfeit the interests of smaller and medium-sized powers as well as civil society at large.

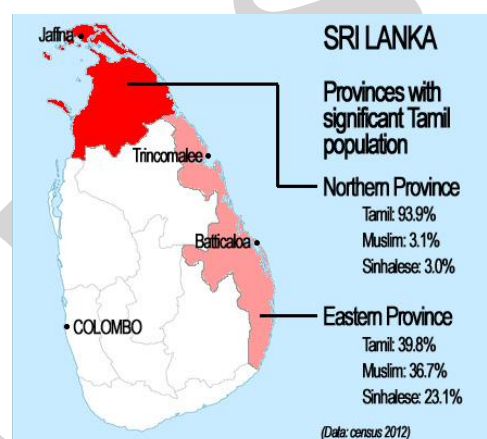


SRI LANKA: 13th CONSTITUTIONAL AMENDMENT

Recently, the voices are becoming loud to abolish 13th constitutional amendment in Sri Lanka.

History of Tamil-Sinhalese conflict

- Great Britain ruled Sri Lanka—then called Ceylon—from 1815 to 1948.
- In 1815, the population of Ceylon numbered about three million predominantly Buddhist Sinhalese and 300,000 mostly Hindu Tamils.
- Sinhalese ancestors most likely arrived on the island from India in the 500s BCE. Sri Lankan people seem to have been in contact with Tamil speakers from southern India since at least the second century BCE.
- The British established huge cash crop plantations on the island, first of coffee, and later of rubber and tea.
- Colonial officials brought in approximately a million Tamil speakers from India to work as plantation labourers. The British also established schools in the northern, Tamil-majority part of the colony, and **preferentially appointed Tamils to bureaucratic positions, angering the Sinhalese majority.**
- This was a common divide-and-rule tactic in European colonies that had troubling results in the post-colonial era in places such as Rwanda and Sudan.
- The British granted Ceylon independence in 1948. The Sinhalese majority immediately began to pass laws that discriminated against Tamils, particularly the Indian Tamils brought to the island by the British.
- The **Ceylon Citizenship Act of 1948 effectively barred Indian Tamils from holding citizenship**, making stateless people out of some 700,000. Over the next three decades more than 300,000 Indian Tamils were deported back to India.
- They made **Sinhalese the official language**, driving Tamils out of the civil service.
- It wasn't until 2003, 55 years after independence—that all Indian Tamils living in Sri Lanka were granted citizenship, but by this time they only made up 5% of the island's population.



Demand of a separate Tamil State in Sri Lanka

- In the late 1960s documents relating to a separate Tamil state of "Tamil Eelam" began to circulate. At this time Anton Balasingham, an employee of the British High Commission in Colombo, began to participate in separatist activities. He later migrated to Britain, where he became the chief theoretician of the LTTE.
- The LTTE was founded in 1976 by Velupillai Prabhakaran with the goal of creating an independent Tamil Eelam out of Sri Lanka.
- From clashes with the Sri Lankan military, the LTTE in the early 80s launched a full-scale nationalist insurgency in the north and east of the country, carrying out a string of major terrorist attacks against both military and civilian targets.

- The Tamil Tigers declared the "First Eelam War" (1983-87).

▪ **13th constitutional Amendment**

- It was an outcome of the Indo-Lanka Accord of July 1987.
- It mandated a measure of power devolution to the provincial councils established to govern the island's nine provinces.
- It led to the creation of **Provincial Councils**, assured a power sharing arrangement to enable all nine provinces in the country, including Sinhala majority areas, to self-govern. Subjects such as education, health, agriculture, housing, land and police are devolved to the provincial administrations, but because of restrictions on financial powers and overriding powers given to the President, the provincial administrations have not made much headway. In particular, the provisions relating to police and land have never been implemented.
- It recognised Tamil as second official language of Sri Lanka.
- It was opposed vociferously by both Sinhala nationalist parties and the LTTE. The former thought it was too much power to share, while the Tigers deemed it too little. It was **widely perceived as an imposition by a neighbour wielding hegemonic influence**.
- Till date, the 13th Amendment represents the only constitutional provision on the settlement of the long-pending Tamil question. In addition to assuring a measure of devolution, it is considered part of the few significant gains since the 1980s, in the face of growing Sinhala-Buddhist majoritarianism from the time Sri Lanka became independent in 1948.



UNSC

In the COVID-19 global scenario, UN completed 75 years of its existence last year, it is important for us to understand the need for a rejig and case for India's Permanent membership of UN Security Council.

The Security Council's membership and working methods reflect a bygone era. Though geopolitics have changed drastically, the Council has changed relatively little since 1945, when wartime victors crafted a Charter in their interest and awarded "permanent" veto-wielding.

▪ **Arguments in favour of India's membership for UNSC**

• **India's values**

- With continuous and functional democratic experience, India is best suited to provide these values into UNSC which is often criticized for acting on behalf of few nations.

• **Founding member**

- India has not only been the founding member of UN but has actively participated in most initiatives of UN. (MDG, SDG Climate Change)
- India has not only participated but has also taken lead roles in matters which are global like climate change, ozone depletion, counter terrorism and rule based global order

• **Experience** : India has been elected for eighth term for a two-year non-permanent member seat.

• **Contribution to UNSC**

- India has almost twice the number of peacekeepers deployed on the ground as much as by P5 countries.
- India is the largest contributor to the UN Peacekeeping Operations (UNPKO), with nearly 180,000 troops serving in 44 missions since it was established.
- India is also among the highest financial contributors to the UN, with the country making regular donations to several UN organs.

• **Economy**

- India is one of the fastest-growing economies of the world.

• **Military/Space**

- Currently, India maintains the world's second-largest active armed force (after China)
- **Representative of Underdeveloped world**
- India is the undisputed leader of the Third world countries, as reflected by its leadership role in Non-Aligned Movement and G-77 grouping.
- **Growing Importance and acceptability of India**
- India's growing popularity is evident in the successful electoral contests for various prestigious slots in the UNSC, the Human Rights Council, the World Court, and functional commissions of the Economic and Social Council, at times defeating the nominees of China and the United Kingdom.

Clearly, a seat for India would make the body more representative and democratic. With India as a member, the Council would be a more legitimate and thus a more effective body. Based on these credentials, India's claim for permanent membership is supported by G4 countries, majority of the permanent members of UNSC and the majority of countries in the United Nation General Assembly.

■ Road Blocks in India's Path

- **Opposition from many countries**
- Opposition from some 30 middle powers such as Italy and Pakistan which fear losing out to regional rivals in the event of an addition of permanent seats, and the intrigues masterminded by one or two permanent members.
- **Chinese Veto power**
- China, which has veto power in the UNSC being one of its five permanent members, has been stonewalling India's efforts to become a permanent member.
- **India is still an underdeveloped country**
- Though India is a bright spot in the global economy and its macroeconomic fundamentals are stable, yet it shows poor performance in many socio-economic indicators like the Human Development Index.
- **Limited military might:**
- India's capacity to project its military power beyond the Indian Ocean region is still to be tested. Further, India heavily relies on weaponry imports from US and Russia for its military requirements.

■ Way forward –

- India, if accepted as a new permanent member, must enjoy the same powers and prerogatives as the existing members.
- The most critical and controversial issue remains the use of the veto power.
- Either the right to exercise the veto power should be completely abolished or all the permanent members, old and new, should be vested with it. There have been suggestions that new permanent entrants to the Council should not have veto rights. Such ideas will shake the very foundations of the Security Council putting its restructuring in jeopardy.
- The world body must take note that a large geographical entity like India cannot just be ignored anymore. It must be conceded its rightful place to play a larger role in world affairs for the benefit of mankind.





KYRGYZSTAN

Kyrgyzstan sits in Central Asia and has suffered spates of political violence in recent years. It is often referred to as 'Central Asia's only democracy'

- **Strategic importance**

- For China, the country, located at the centre of Eurasia, is a vital link in its Belt and Road Initiative. China has built road and rail networks with Kyrgyzstan and Uzbekistan.
 - During the early stages of the Afghan war, the U.S. had used Kyrgyzstan for refuelling and other logistical purposes.
 - It hosts Russian air base. Russia sees this country as its political backyard and seeks to keep its dominance over it.
 - Some of the countries having Russian influence are witnessing violence and conflict. For Example - protests in Belarus and conflict between Armenia and Azerbaijan, both former Soviet Republics, over Nagorno-Karabakh
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GEOGRAPHY AND ENVIRONMENT

(Ecology; Biodiversity and Disaster Management)



LANDSLIDES

- Landslide is rapid movement of rock, soil and vegetation down the slope under the influence of gravity. These materials may move downwards by falling, toppling, sliding, spreading or flowing. Such movements may occur gradually, but sudden sliding can also occur without warning. They often take place in conjunction with earthquakes, floods and volcanic eruptions.
- The extent and intensity of landslide depends upon number of factors- **Steepness of the slope, amount of vegetation cover, tectonic activity, bedding plane of the rocks etc.**

- **Landslide Prone areas in India:** The major landslide prone areas in India include:-

1. Western Ghats and Konkan Hills (Tamil Nadu, Kerala, Karnataka, Goa and Maharashtra);
2. Eastern Ghats (Araku region in Andhra Pradesh);
3. North-East Himalayas (Darjeeling and Sikkim);
4. North West Himalayas (Uttarakhand, Himachal Pradesh, Jammu and Kashmir).

- The **Himalayan mountain ranges** and hilly tracts of the North-Eastern region are highly susceptible to slope instability due to the **immature and rugged topography, fragile rock conditions, high seismicity** resulting from proximity to the plate margins, and high rainfall. Extensive anthropogenic interference, as part of developmental activities, is another significant factor.
- Similarly, the **Western Ghats**, though located in a relatively stable domain, experiences landslides due to number of factors- **steep hill slopes, high intensity rainfall and anthropogenic activities**. The Nilgiris hills located at the convergence zone of the Eastern Ghats and the Western Ghats experiences a number of landslides due to high intensity and protracted rainfall.
- **Types of Landslides**
 - **Falls:** Abrupt movements of materials that become detached from steep slopes or cliffs, moving by free-fall, bouncing, and rolling.
 - **Creep:** Slow, steady downslope movement of soil or rock.
 - **Debris flow:** Rapid mass movement in which loose soils, rocks, and organic matter combine with water to form slurry that then flows down slope. Usually associated with steep gullies
 - **Mudflow:** Rapidly flowing mass of wet material that contains at least 50 percent sand-, silt-, and clay-sized particles.
 - **Flows:** General term including many types of mass movement, such as creep, debris flow, mudflow etc.



- **Causes of Landslides**

- **Geological Causes:** Weak, Sensitive and Weathered material, Sensitive material, Presence of Joints and Fissures, Variation in physical properties such as Permeability.
- **Morphological Causes:** Tectonic or volcanic uplift, Erosion due to Wind and Water, Higher deposition of load on the slope or its crest, Removal of Vegetation.
- **Physical Causes:** Intense rainfall, Earthquake/Volcanic eruption, Rapid snow melt/freeze
- **Human Causes:** Excavation of the slope or its toe, Deposition of load on the slope, Drawdown of Reservoir, Deforestation, Mining, Irrigation and artificial vibration.

- **Impact of Landslides**

- **Short run:** Loss and damage to property, loss of lives, Destruction to agricultural crops, Damages to Vegetation, Obstruction of vehicular movement leading to Traffic jam, temporary loss of livelihood for the poor people etc.
- **Long-run:**
 - Increase in the sediment load of the river which can lead to floods.
 - Reduce the effective life of hydroelectric and multipurpose projects by adding an enormous amount of silt load to the reservoirs.
 - Loss of cultivable land
 - Environmental impact in terms of erosion and soil loss
 - Demographic Impact in terms of relocation of population towards other areas
 - Frequent disruption of transportation networks leads to geographical isolation and hence perpetuates under-development

- **NDMA Guidelines for Landslide Disaster Management**

- **Landslide Hazard, Vulnerability and Risk Assessment:** This includes delineating areas susceptible to landslide hazards in different areas and to assess the resources at risk.
- **Early Warning Systems for Landslides:** This includes the continuous monitoring of movements, development of stresses and the transmission of this data at regular time intervals.
- **Investigations for Landslide Risk Assessment:** Multi-disciplinary investigations of landslide risk assessment leading to formulation of Standards to mitigate impact of landslides.
- **Landslide Risk Mitigation and Remediation:**
 - Restricting Development in Landslide-Prone Areas through Land use planning.
 - Laying down standards to be followed for Excavation and Construction
 - Protecting Existing Developments through restraining walls and rock anchors
 - Slope Stabilisation measures: Generally, include works involving modification of the natural landslide conditions such as topography, geology, ground water, and other conditions that indirectly control portions of the entire landslide movement. These include drainage improvement works, soil/debris removal works etc.
 - Landslide Insurance and Compensation for Losses
- **Regulation and Enforcement:**
 - The state governments/SDMAs will adopt the model techno-legal framework for ensuring compliance with land use zoning and landslide safety issues in all development activities and plans.
 - Awareness and Preparedness: Comprehensive awareness campaigns targeting different groups of people living in landslide prone areas should be carried out systematically
- **Capacity Development (Including Education, Training and Documentation):**
 - Introduction of curriculum related to Disaster Management, including Landslides in the Schools
 - Training of the Administrators to plan, respond and mitigate the impact of Landslides
 - Technical institutes located in vulnerable areas should develop adequate technical expertise on the various subjects related to landslide management.

- **Immediate Response:**

- Put in place Standard Operating Procedure (SoP) which should ensure coordinated and sustained action from various agencies in the aftermath of landslides
- Research and Development: Government should encourage, promote, and support R&D activities to address current challenges, offer solutions, and develop new investigation techniques, with the application of the latest developments in remote sensing, communications, and instrumentation technologies.



KALESHWARAM LIFT IRRIGATION PROJECT

- The Kaleshwaram Lift Irrigation System is considered to be one of the world's largest multi-purpose projects.
- It is designed to provide water for irrigation and drinking purposes to about 45 lakh acres in 20 of the 31 districts in Telangana, apart from Hyderabad and Secunderabad.
- The cost of the project is Rs 80,000 crore, but is expected to rise to Rs 1 lakh crore by the time it is completely constructed by the end of 2020.

- **Features**

- This project is unique because Telangana will harness water at the confluence of two rivers, **Godavari** and **Pranhita**, by constructing a barrage at Medigadda in Jayashankar Bhupalpally district and reverse pump the water into the main Godavari River and divert it through lifts and pumps into a huge and complex system of reservoirs, water tunnels, pipelines and canals.
- The project has set many records with the world's longest water tunnels, aqueducts, underground surge pools, and biggest pumps. By the time the water reaches Kondapochamma Sagar, the last reservoir in the system, about 227 kms away in Gajwel district, the Godavari water would have been lifted to a height of 618 metres from its source at Medigadda.
- The total length of the entire Kaleshwaram project is approximately 1,832 km of which 1,531 km is gravity canals and 203 km comprise water tunnels. There are 20 water lifts and 19 pump houses in the project.
- The massive project is divided into seven links and 28 packages and involved digging of 20 reservoirs in 13 districts with a total capacity to store 145 TMC. The reservoirs are interconnected through a network of tunnels running about 330 km, the longest being 21 km long connecting **Yellampalli reservoir** with **Medaram reservoir** in Peddapalli district.
- While the intricate canal network covers approximately 1,832 km, the farthest point is Narketpally in Nalgonda district which is 500 km away from the source. Except for a few stretches involving pipelines and canals, much of the project is complete.

- **Importance**

- Kaleshwaram will transform Telangana into an agricultural powerhouse. The project will enable farmers in Telangana to reap multiple crops with a year-round supply of water wherein earlier they were dependent on rains resulting in frequent crop failures. This year, Telangana farmers have already delivered bumper rabi crops of paddy and maize due to better irrigation facilities and an extended monsoon.
- KLIS covers several districts which used to face rainfall deficit and the groundwater is fluoride-contaminated. Apart from providing water for irrigation to 45 lakh acres, a main component of the project is supply of drinking water to several towns and villages and also to twin cities of Hyderabad and Secunderabad.
- Mission Bhagiratha, the Rs 43,000-crore project to supply drinking water to every household in villages, draws a large quantity of water from the KLIS and some quantity from projects on River Krishna. There is a burgeoning fresh water fishing industry in the state as the numerous water bodies created under the project are also being used to grow fish and locals are given rights to fish and sell.



DECLINE IN SPECIES

Globally, population sizes of mammals, fish, birds, reptiles, and amphibians have declined an average of 68% between 1970 and 2016, according to World Wildlife Fund's (WWF) Living Planet Report.

■ Status of species across the world

- **Populations in Latin America and the Caribbean have fared worst, with an average decline of 94%.** Global freshwater species have also been disproportionately impacted, declining 84% on average.
- As an important indicator of planetary health, these drastic species population trends signal a fundamentally broken relationship between humans and the natural world, the consequences of which—as demonstrated by the ongoing COVID-19 pandemic—can be catastrophic.
- The *Living Planet Report* points to one **underlying cause for the deterioration of nature and decline in species populations: humanity.** During the past 50 years the explosive growth of human consumption, population, global trade, and urbanization means people are now using more of the Earth's resources than can possibly be replenished, the report says.
- **This overuse has a disastrous impact on biodiversity**—the animal and plant life that together make up a functional, circle-of-life ecosystem.
- **The most important direct driver for loss of biodiversity is land-use change**, particularly the conversion of pristine native habitats, like forests, grasslands, and mangroves, into agricultural systems. And while globally climate change is not yet the greatest driver of biodiversity loss, the report states that in the coming decades climate change will become as, or more important than, other drivers.
- The report finds that while **nature is being destroyed and changed at an extraordinary rate, modelling predicts that the declining trends can be flattened and reversed with urgent and unprecedented actions.** These actions include transforming food production and consumption, aggressive movement to tackle climate change, and investments that conserve, protect, and restore nature.
- The report also highlights the need to **transform our economic systems to reflect the 'natural capital'** that underpins our economic prosperity.

In sum, the report urges world leaders to treat biodiversity conservation as a non-negotiable and strategic investment to preserve human health, wealth, and security.



CHEETAH

The Supreme court had lifted seven year stay on a proposal to introduce African cheetahs from Namibia into the Indian habitat on an experimental basis.

- Reintroduction of the cheetah in India involves the re-establishment of a population of cheetahs into areas where they had previously existed. A part of the reintroduction process is the identification and restoration of their former grassland scrub forest habitats.

■ Causes which led to the extinction of Cheetahs

- **Hunting:** They were hunted into extinction during and after the Mughal Period, largely by Rajput and Maratha Indian royalty and later by British colonialists, until the early 20th century when only several thousand remained.
- **Captive (help in hunting):** Trapping of large numbers of adult Indian cheetahs, who had already learned hunting skills from wild mothers, for assisting in royal hunts is said to be another major cause of the species rapid decline in India as they never bred in captivity with only one record of a litter ever.



- **Ways to revive Cheetah population**

- **Biotechnology: Cloning**

- India first proposed this method during last decade but it didn't work.
- During the early 2000s, Indian scientists from the Centre for Cellular and Molecular Biology (CCMB), Hyderabad, proposed a plan to clone Asiatic cheetahs obtained from Iran.
- Indian scientists requested Iran to allow them to collect some live cells of the cheetah pair in Iran itself, which can then be made into living cell lines. They planned to use the nucleus from these cells to manually reproduce their own cheetahs, over a significantly long amount of time.
- Iran refused to cooperate (would neither send any cheetahs to India nor would allow Indian scientists to collect their tissue samples)
- It is said that Iran wanted an Asiatic lion in exchange for a cheetah and that India was not willing to export any of its lions.

- **Reintroducing live Cheetahs**

- So it was decided that African Cheetah would be introduced in protected areas in India.

- **Issues with the reintroduction**

- **Clash with lion conservation**

- As the habitat for Asiatic lion as well as the Cheetah is similar, many sites identified for Cheetah reintroduction clash with lion conservation. As we know that there is only a single population of Lion in India in Gir and that has become unsustainable due to rapid growth in their population and there is a need to relocate many lions from Gir.
- An expert panel formed by the government shortlisted a number of protected areas where cheetahs could be relocated. These were **Kuno-Palpur** and **Nauradehi Wildlife Sanctuary** in Madhya Pradesh, **Velavadar National Park** in Gujarat and the **Shahgarh bulge** in Rajasthan.
- **The Kuno reintroduction plan ran into trouble.** The protected area had also been shortlisted for introduction of Asiatic Lions from heavily populated Gir in Gujarat. In order to not give lions to Kuno, Gujarat's legal counsel had put forward the argument that Kuno was being used for the introduction of African cheetah which might take several years to fully settle down and repopulate the area and hence reintroduction of lions should only be done after that.

- **Perpetual problems with India's wildlife**

- As the import of the Cheetahs from Africa will be very limited, the problems being faced by the wildlife in the country might undo the efforts.
- It is advisable to resolve following issues first:
 - Human-wildlife conflict,
 - loss of habitat and loss of prey
 - illegal trafficking.
 - The advent of climate change and growing human populations have only made these problems worse.
- With less available land for wildlife, species that require vast home range like the cheetah are placed in competition with other animals and humans, all fighting over less space.



BARN OWL

- The barn owl (*Tyto alba*) is the most widely distributed species of owl in the world and one of the most widespread of all species of birds.
- It is also known as the common barn owl, to distinguish it from the other species in its family, Tytonidae, which forms one of the two main lineages of living owls, the other being the typical owls (Strigidae).
- The barn owl is found almost everywhere in the world except for the polar and desert regions, Asia north of the Himalayas, most of Indonesia, and some Pacific islands.

- The Lakshadweep Administration has embarked on the 'Pilot project on Biological Control of Rodents (Rats) by Using Barn Owls (*Tyto alba*) in Kavaratti Island'.



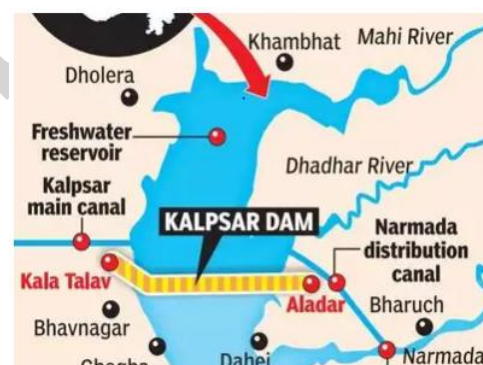
BHADHUT PROJECT

Bhadbhut project in Bharuch is meant to solve freshwater problems in this region of Gujarat.

- It is planned to be a 1.7-km causeway-cum-weir barrage, across the River Narmada, 5 km from Bhadbhut village, and 25 km from the mouth of the river, where it flows into the Gulf of Khambhat.
- The barrage will stop most of the excess water flowing out of the Sardar Sarovar Dam from reaching the sea and thus create a "sweet water lake" of 600 mcm (million cubic metres) on the river.
- The barrage will also have a six-lane road that will connect the left and right banks of the river and provide shorten the land distance between two large industrial estates in Surat and Bharuch.
- The project also aims to prevent flooding in years when rainfall is higher than normal. Embankments 22 km long will be made and will extend upstream towards Bharuch, from either side of the river.

Need for this project

- The main purpose of the project is to prevent salinity ingress.
- For example
 - At the beginning of the 21st century, an estimated 16.30 million acre feet (MAF) of water used to be released from the dam.
 - By 2017, when the height of the dam rose, flow into the river reduced to 4.7 MAF. Due to the reduced flow of fresh water, saline seawater gushes into the Narmada estuary during high tide, thus increasing salinity along the banks.
- The sweet water from the reservoir will aim to meet the residential and industrial water requirements of Bharuch, Ankleshwar and Dahej.
- The project is part of the larger **Kalpasar Project**, which entails construction of a 30-km dam across the Gulf of Khambhat between Bharuch and Bhavnagar districts. The reservoir is meant to tap the waters of the Narmada, Mahisagar and Sabarmati.
- Part of **Aliya Bet**, an island in the delta of the Narmada and known for shrimp farming, is likely to get submerged. A portion of the forest in Aliya Bet too will get affected by the project. Most of the Aliya Bet is downstream from the barrage.



WESTERN DISTURBANCE

- A western disturbance is an **extratropical storm** originating in the Mediterranean region that brings sudden winter rain to the north western parts of the Indian subcontinent. It is a non-monsoonal precipitation pattern driven by the westerlies.
- The moisture in these storms usually originates over the **Mediterranean Sea, the Caspian Sea and the Black Sea**.

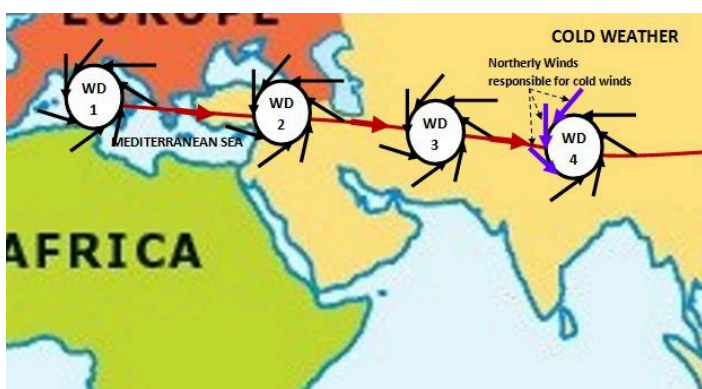
Formation

- Western disturbances originate in the Mediterranean region.
- A high-pressure area over Ukraine and neighbourhood consolidates, causing the intrusion of cold air from polar regions towards an area of relatively warmer air with high moisture.
- This generates favourable conditions for cyclogenesis in the upper atmosphere, which promotes the formation of an eastward-moving extratropical depression.

- Traveling at speeds up to 12 m/s (43 km/h; 27 mph), the disturbance moves towards the Indian subcontinent until the Himalayas inhibits its development, upon which the depression rapidly weakens.
- The western disturbances are embedded in the mid-latitude subtropical westerly jet stream.

■ Impact of Western Disturbances on Indian climate

- Western disturbances are usually associated with cloudy sky, higher night temperatures and unusual rain.
- Western disturbances, specifically the ones in winter, bring moderate to heavy rain in low-lying areas and heavy snow to mountainous areas of the Indian Subcontinent.
- They are the cause of most winter and pre-monsoon season rainfall across northwest India.
- Precipitation during the winter season has great importance in agriculture, particularly for the rabi crops.
- Wheat among them is one of the most important crops, which helps to meet India's food security.



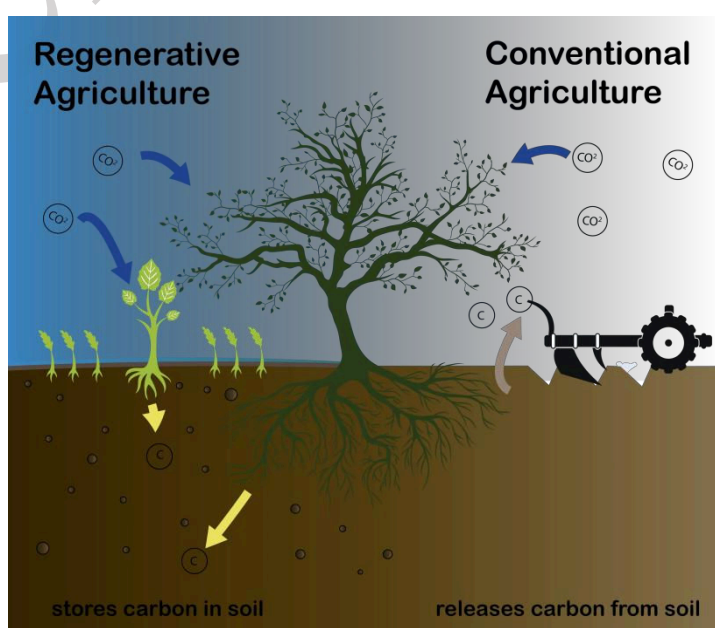
■ Are there any ill-effects of Western Disturbances?

- Excessive precipitation due to western disturbances can cause crop damage, landslides, floods and avalanches.
- Over the Indo-Gangetic plains, they occasionally bring cold wave conditions and dense fog. These conditions remain stable until disturbed by another western disturbance.
- When western disturbances move across northwest India before the onset of monsoon, a temporary advancement of monsoon current appears over the region.



REGENERATIVE AGRICULTURE

- "Regenerative Agriculture" describes farming and grazing practices that, among other benefits, reverse climate change by rebuilding soil organic matter and restoring degraded soil biodiversity – resulting in both carbon drawdown and improving the water cycle.
- The key to regenerative agriculture is that it not only "does no harm" to the land but actually improves it, using technologies that regenerate and revitalize the soil and the environment.
- Regenerative agriculture leads to healthy soil, capable of producing high quality, nutrient dense food while simultaneously improving, rather than degrading land, and ultimately leading to productive farms and healthy communities and economies.
- It is dynamic and holistic, incorporating permaculture (sustainable and self-sufficient agricultural ecosystems) and organic farming practices, including conservation tillage, cover crops, crop rotation,



composting, mobile animal shelters and pasture cropping, to increase food production, farmers' income and especially, topsoil.

- It has been promoted to counter loss of the world's fertile soil and biodiversity, along with the loss of indigenous seeds and knowledge.



BIOLOGICAL DISASTER

NDMA action points on biological disaster are given below:

- **Capacity development** – Facilities and amenities must be developed to cover all issues of environmental management like water supply, personal hygiene, and vector control, burial/disposal of the dead and the risk of occurrence of zoonotic disorders.
 - **Pharmaceutical and non-pharmaceutical interventions and biosafety/biosecurity measures** – Tools must be developed to monitor the status of available pharmaceutical interventions including antibiotics, chemotherapeutics and anti-virals, and listing of essential drugs that may be required to manage biological emergencies.
 - **Establishment of command, control and coordination functions** – A well-orchestrated medical response to biological disasters will only be possible by having a command and control function at the district level with the district collector as commander.
 - **Capacity development of human resource, training and education, community, standardised documentation procedures and R&D** – The roles of various health and non-health professionals at various levels in the management of a biological crisis must be defined. Control rooms to support the field responders should be set up. These professionals must be trained through refresher courses to fill the prevailing gaps.
 - **Development of critical infrastructure for management of biological emergencies** – The development of a laboratory network including national/state level referral laboratories, and district level diagnostic laboratories with medical colleges to confirm diagnosis under a single integrated framework. On a similar basis, a chain of public health laboratories must also be developed and networked. The critical infrastructure must also be supported by biomonitoring techniques based on advanced molecular and biochemical techniques.
 - A **properly functioning epidemiological mechanism** must be used to prepare an action plan for the management of avian flu, and similar incidences to effectively combat the inherent risks. Various international best practices must be tested and incorporated in the DM plans by the nodal and line ministries to prevent the spread of biological disasters across international boundaries.
 - **Preparedness for biological containment of microbial agents** – SOPs for biosafety and biosecurity must be developed by the respective laboratories in accordance with the National Code of Practice for Biosecurity and Biosafety.
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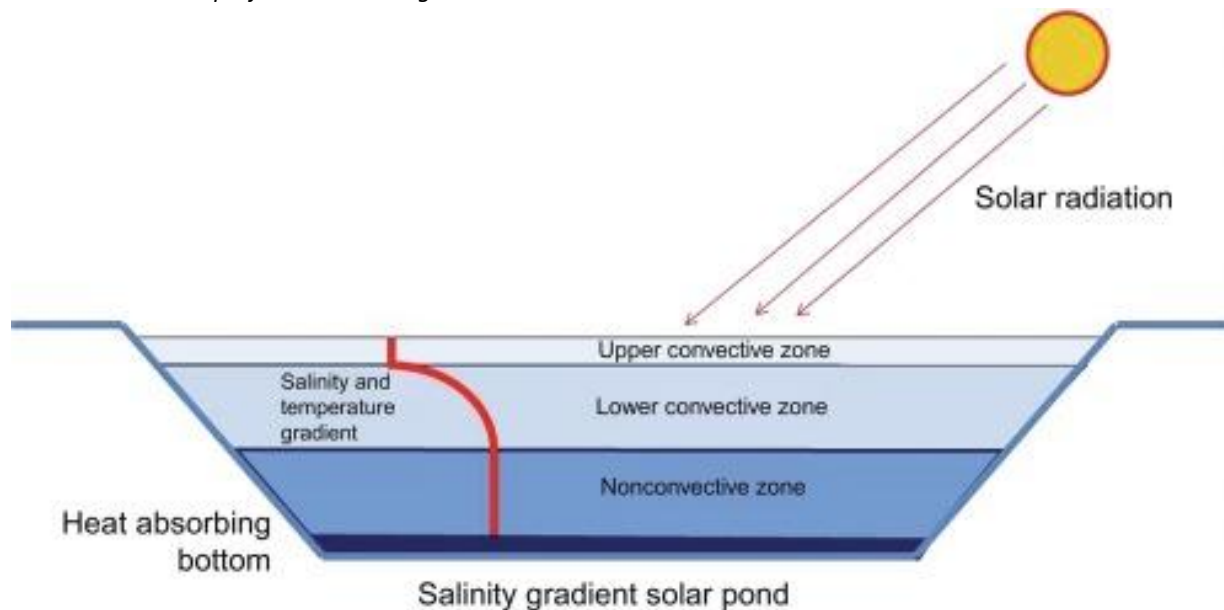
SCIENCE AND TECHNOLOGY

(Inventions, Innovations, Discoveries and Explorations)



SALINITY GRADIENT ENERGY

Salinity gradient power is the **energy created from the difference in salt concentration between two fluids**, commonly fresh and salt water, e.g., when a river flows into the sea. There are two technologies for which demonstration projects are running and both use membranes.



1. **Pressure Retarded Osmosis (PRO)** uses a membrane to separate a concentrated salt solution (like sea water) from freshwater. The freshwater flows through a semipermeable membrane towards the sea water, which increases the pressure within the seawater chamber. A turbine is spun as the pressure is compensated and electricity is generated.
2. **Reversed Electro Dialysis (RED)** uses the transport of (salt) ions through membranes. RED consists of a stack of alternating cathode and anode exchanging perm selective membranes. The compartments between the membranes are alternately filled with sea water and freshwater. The salinity gradient difference is the driving force in transporting ions that results in an electric potential, which is then converted to electricity.
- **Two main applications exist:** as standalone plants in estuaries where freshwater rivers run into the sea; and as hybrid energy generation processes recovering energy from high salinity waste streams. This could be for example, brine from desalination or salt mining, as well as waste water treatment plants. A possible third application is salinity gradient technologies applied to land based saltwater lakes or other types of salt water reserves.



INTERNET OF THINGS

- The Internet of things (IoT) is the extension of Internet connectivity into physical devices and everyday objects.
- Embedded with electronics, Internet connectivity, and other hardware like sensors, these devices can communicate and interact with others over the Internet, and they can be remotely monitored and controlled by computers and smart phone.

Applications of internet of things:



- **Smart cities:** Cellular communication enabled Smart municipal bins will send alerts to municipal services when a bin needs to be emptied
- **Agriculture:** Sensing for soil moisture and nutrients, controlling water usage for plant growth and determining custom fertilizer are some simple uses of IoT.
- **Energy utilization:** Smart Grids will be able to detect sources of power outages, can automatically take inputs of solar panel, making possible distributed energy system
- **Healthcare:** Personalized analysis of an individual's health and tailor-made strategies to combat illness will be possible.
- **Manufacturing:** The IoT intelligent systems enable rapid manufacturing of new products, dynamic response to product demands, and real-time optimization of manufacturing production and supply chain networks, by networking machinery, sensors and control systems together.
- **Environmental monitoring:** to assist in environmental protection by monitoring air or water quality, atmospheric or soil conditions. It can even include areas like monitoring the movements of wildlife and their habitats
- **Supply chain:** By placing RFID tags on individual products, the exact location of single items in a large warehouse can be shared, thus saving search time, streamlining infrastructure, and lowering labour costs.

PULSE OXIMETER

- A pulse oximeter is a small, lightweight device used to monitor the amount of oxygen carried in the body.
- This non-invasive tool attaches painlessly to your fingertip.
- Once the oximeter finishes its assessment, its screen will display the percent of oxygen in your blood coming from your heart—as well as your current pulse rate.
- **Blood Oxygen Saturation (SpO2)**
 - Your SpO2 reading is an **estimation of the amount of oxygen in your blood.**
 - An SpO2 reading of 95% or greater is generally considered to be a normal oxygen level.
 - **However, an SpO2 reading of 92% or less (at sea level) suggests that your blood is poorly saturated.**
 - Insufficient saturation can cause a range of adverse health conditions—including chest pain, shortness of breath and increased heart rate.

Acceptable range of Oxygen in the blood:

- Acceptable normal ranges for patients without pulmonary pathology are from 95 to 99 percent.

- For a patient breathing room air at or near sea level, an estimate of arterial pO₂ can be made from the blood-oxygen monitor "saturation of peripheral oxygen" (SpO₂) reading.

How Pulse Oximeter works?

- A blood-oxygen monitor displays the percentage of blood that is loaded with oxygen.
- More specifically, it measures what percentage of haemoglobin, the protein in blood that carries oxygen, is loaded.

• Actual Mechanism

- A typical pulse oximeter uses an electronic processor and a pair of small light-emitting diodes (LEDs) facing a photodiode through a translucent part of the patient's body, usually a fingertip or an earlobe.
- One LED is red, with wavelength of 660 nm, and the other is infrared with a wavelength of 940 nm.
- Small beams of light pass through the blood in the finger, measuring the amount of oxygen. It does this by measuring changes of light absorption in oxygenated or deoxygenated blood. This is a painless process. The pulse oximeter will thus be able to tell you your oxygen saturation levels along with your heart rate. In general, a lower heart rate at rest implies more efficient heart function and better cardiovascular fitness. For some people, a pulse rate below 60 bpm indicates abnormally slow heart action, also known as bradycardia. Bradycardia can cause a number of problematic symptoms—including fainting, fatigue, chest pains and memory problems.

CHOANOFLAGELLATES

- The choanoflagellates are a group of free-living unicellular and colonial flagellate eukaryotes considered to be the closest living relatives of the animals.
- They help to reconstruct animal origins and elucidate core mechanisms underlying animal cell and developmental biology.
- In the beginning, the environment of Earth was devoid of oxygen. It was high in methane, was not fit for animal life.
- At the same time, it could 'host' microorganisms which could cope with the incoming sunlight and use it to generate energy for living. This was around 3.4 billion years ago.
- In the process, these microorganisms **generated the gaseous waste product called oxygen**.
- About 2 Byr, later the amount of oxygen on Earth became an important component of the Earth's surface, and amenable for animal life.
- Choanoflagellates are the closest living relatives of animals that appeared nearly a billion years ago.
- Over time, animal cells also evolved to produce increased amounts of molecules called **reactive oxygen species (ROS)**, which are involved in many essential cell activities but toxic at high levels.
- In addition, more complexity necessitates a substantial increase in the genome size of the animal with concomitant increase in all transactions in the cell: DNA, the genetic material in the cells of the various organs, their transcription of the information to messenger RNA (mRNAs), then translation of these into the amino acid sequences that make individual proteins in the cells through what are called tRNAs — at least one per amino acid.
- If a wrong interpretation of the genetic code at the protein level occurs, it will lead to functional disorders and even diseases.

IN-SPAcE

In a historic step, the government has established IN-SPAcE as the new space industry regulator in India. 'IN-SPAcE' (Indian National Space Promotion and Authorisation Centre), will be an autonomous organisation under the Department of Space with an aim to enhance private sector participation in the space industry.

▪ **Context**

- India currently holds a meagre 2% share in the global space industry worth \$360 billions.
- In a bid to increase its footprint in the global space industry India as a part of Atma Nirbhar Bharat Abhiyan decided to throw open space sector to private sector entities.
- While private sector in India is currently involved in fabrication of rocket components, this move will enable private sector to make their own rockets and use ISRO's launch vehicle ports like one in Siharikota to launch their own rockets.
- Besides private sector participation will be leveraged in manufacturing of satellites and propellant technology and providing space-based services.
- Thus in order to provide a level-playing field to private sector entities the Union Cabinet has approved the establishment of IN-SPAcE.

▪ **Need for Private Sector Participation: Commercialisation of Space industry**

- Commercial space activities can be categorised into:-
 - a. **Upstream Activities:** Those activities involved in building of rockets, launch of rockets;
 - b. **Downstream Activities:** Those activities involved in utilizing space-based assets for different applications including remote sensing, telecommunication, broadcasting, space-based internet, navigation, meteorology etc.
- Given the proliferation of space-based applications, private sector involvement in downstream activities is imperative if India has to gain from it.

▪ **Functions of IN-SPAcE**

- Regulator of space industry in India.
- It will be responsible for granting approval to private sector entities to use space infrastructure of ISRO for space missions.
- Its decision will be binding on ISRO.
- It will also be responsible for building a conducive policy-ecosystem for commercialisation of space in India/
- It will hand-hold, promote and guide the private industries in space activities.

▪ **Benefits**

- **Greater pool of resources** - Public resources- land, labour, capital are limited. Private sector participation will open new pool of resources and talent. It will bring more funding, and experience into space exploration activities.
- **Human Capital**- Restricting space activities to ISRO, limits proper utilisation of talent all over the country. With demographic dividend, private sector participation can exploit the talent across the nation contributing a lot to space explorations in India.
- **Deep-space exploration by ISRO**- While private sector can focus more on downstream activities and satellite launches, ISRO can focus on deep space exploration.
- **Innovation** – Commercialisation will develop better technologies allowing integration of novel technologies like artificial intelligence propelling innovation in space exploration activities.
- **Risk Sharing:** Privatising helps in sharing the risk of cost factor. Failure costs will be distributed. Also with increased private participation, failures will reduce due to increased available human capital and mind.

▪ **Way forward**

- **Intellectual Property regulatory environment:** Currently, all Intellectual Property associated with space-related components are held by ISRO. The suppliers merely manufacture and supply the components. This has hampered product development ecosystem as private sector does not have incentive for innovation.

- **Legal environment:** We need to expedite the passing of Space Activities Bill which clearly lays down the eligibility criteria for potential licensees. In addition, the law should also provide for an adjudicating body like a tribunal for potential disputes.
- **Enabling Regulatory Regime:** The current regulatory ecosystem is complex with multiple regulations and multiple agencies guiding the relation between satellite communications, industry and the government making the entire process a time taking one. For example:-
- **Multiple Regulations:** SATCOM Norms 2000, The Indian Telegraph Act 1885 and The National Frequency Allocation Plan 2018
- **Multiple agencies:** Department of Space, the Department of Telecommunications, the Ministry of Home Affairs, the Ministry of Defence, the Wireless Planning Commission (WPC), the Network Operation and Control Centre (NOCC), the Telecom Engineering Centre (TEC) and the satellite division of the Department of Telecom.



INTERNET GOVERNANCE

- **What is Internet Governance?** Refers to the rules, policies, standards and practices that coordinate and shape global cyberspace. Currently there is no global internet governance framework.
- **Need for Internet Governance Framework:** Internet has fundamentally changed the social, economic and political milieu of the world by its sheer reach. This has enabled one country to shape activities in another. Eg: Arab Spring was triggered by Social Media Platforms owned by US companies.
- **Cross-border nature:** Data is seen as the new engine of growth and thus where the data is produced, who owns the data and for what purpose have significant impact on the economies. Further with increasing deployment of digital technology the critical infrastructure of countries are vulnerable to attacks from across borders.
- **Power Struggle:** Internet is used by both state and non-state actors of one country to influence political and social life of another. E.g. Russia in US elections.
- **Equitable Use of Internet:** While the use of internet for development was discussed as early as 1998 in the UN there is no consensus among countries with regard to what constitutes internet governance. **For e.g.** Although the users of internet are spread across the world yet the infrastructure like undersea cables that fuel the internet is dominated by few countries.
- **Lack of uniform cyber laws:** Given the cross-border nature of data flow, countries lack jurisdiction over another. Thus, there is an increasing need for “cyber norms” that can balance the competing demands of national sovereignty and transnational connectivity.
- **Current Status on the actions taken for promoting Internet Governance.** As stated above, the 1st time the issue of use of internet for development was discussed at the UN platform in 1998. Accordingly, the UN set up a mechanism called **Group of Governmental Experts** to discuss the issue of internet governance. However, the problem is this body has limited membership and thus proven ineffective.
- For the 1st time in October 2019, this was made more inclusive by another mechanism called **Open-Ended Working Group** which included all 193 members.

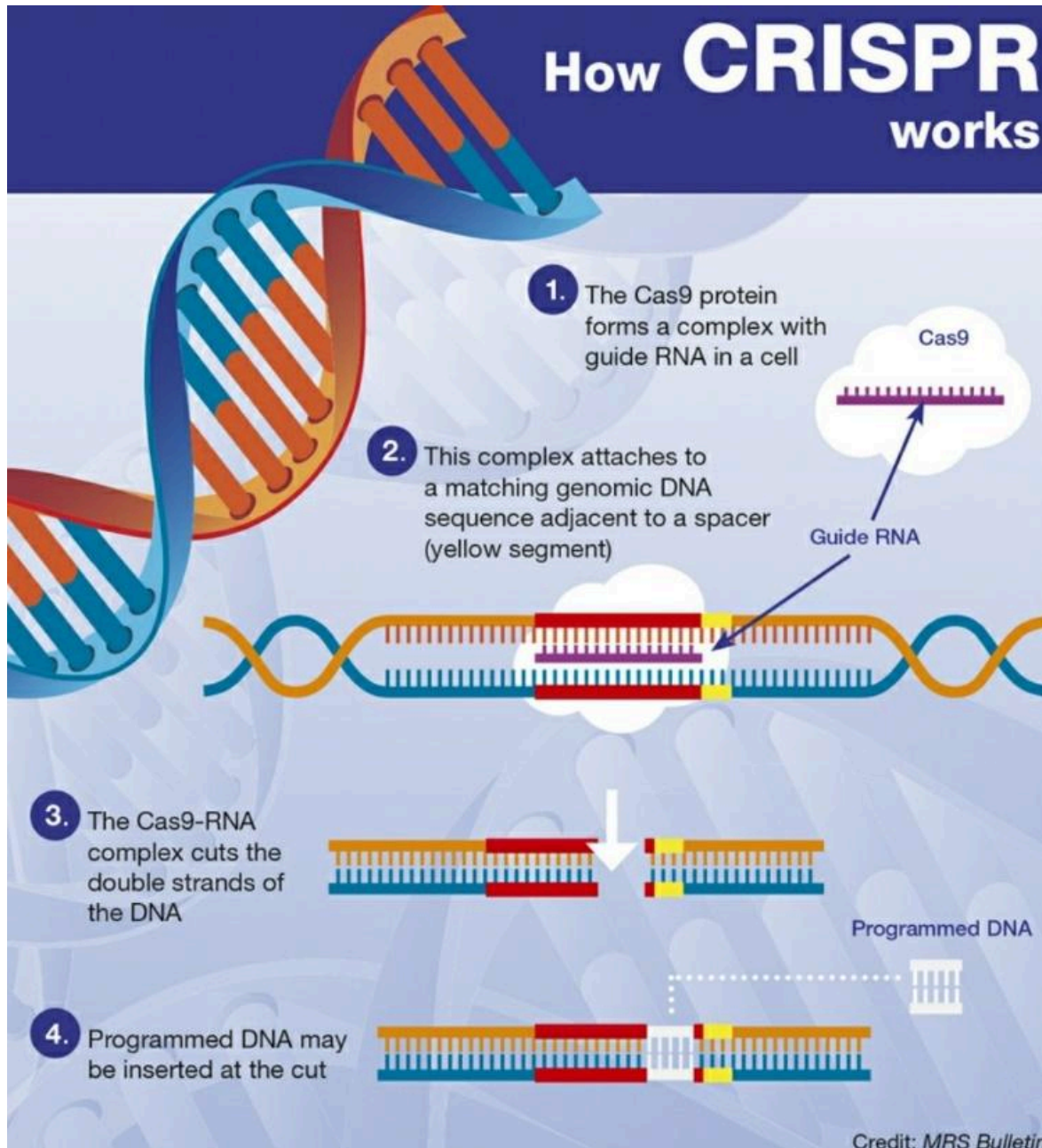


CRISPR - Cas9

- **CRISPR** – Clustered, regularly interspaced, short palindromic repeats, is the technology and Cas9 is the protein that acts like a scissor.
- CRISPR technology is basically a gene-editing technology that can be used for the purpose of altering genetic expression or changing the genome of an organism.
- This technique is based on the natural defence mechanism found in some bacteria.
- It uses a specific enzyme — **Cas9** — to identify and eliminate predetermined genes and DNA sequences.
- The technology can be used for targeting specific stretches of an entire genetic code or editing the DNA at particular locations.

- Its many potential applications include correcting genetic defects, treating and preventing the spread of diseases and improving crops.
- **It is a cheaper, more** effective, and endlessly adaptable form of gene manipulation, and it seems to work in every model organism.

■ **How CRISPR - Cas9 technology works?**



- In bacteria, Cas9 carries crRNA — the genetic information of viruses to identify where to make their cuts.
- The specific location of the genetic codes that need to be changed, or “edited”, is identified on the DNA strand, and then, using the Cas9 protein, which acts like a pair of scissors, that location is cut off from the strand. A DNA strand, when broken, has a natural tendency to repair itself.
- **If Cas9 is assigned a specific RNA sequence and delivered to cells, it will hunt down corresponding sequences in the cellular DNA housed in the nuclei and perform a double-strand cut, severing the entire helix at a predetermined point.**
- Scientists intervene during this auto-repair process, supplying the desired sequence of genetic codes that binds itself with the broken DNA strand.

INDIAN POLITY

(Constitution; Polity and Governance)



NALSA

National Legal Services Authority of India (NALSA) underscored the need for giving legal assistance to the marginalised.

▪ Legal Services Authority Act, 1987

- This Act constitutes legal services authorities at National and respective State level to provide free and competent legal services to the weaker sections of the society.
- It ensures that opportunities for securing justice are not denied to any citizen by reason of economic or other disabilities by following **Article 39A** of the Indian Constitution which mentions about providing free legal aid to the poor and weaker sections of the society.
- The Act also **authorises to organise Lok Adalats and other Alternate Dispute Resolution** mechanisms to provide quick, inexpensive and effective resolution of disputes and promote justice on a basis of equal opportunity as per Article 14.
- The Act ensures that opportunities for securing justice are not denied to any citizen by reason of economic or other disabilities. Hence, settling disputes at ground level helps in minimizing the load of adjudication on the overburdened judiciary.
- The Act authorises the formation of Supreme Court Legal Services Committee, High Court Legal Services Committee and Taluk Legal Services Committee.

▪ Composition of National Legal Services Authority

- National Legal Services Authority shall consist of
 - a) the **Chief Justice of India** who shall be the Patron-in-Chief,
 - b) a serving or retired Judge of the Supreme Court to be nominated by the President, in consultation with the Chief Justice of India, who shall be the Executive Chairman and
 - c) Such number of other members, possessing such experience and qualifications, as may be prescribed by the Central Government, to be nominated in consultation with the Chief Justice of India.
 - d) The Central Government shall, in consultation with the Chief Justice of India, appoint a person to be the Member-Secretary of the Central Authority to exercise such powers and perform such duties under the Executive Chairman of the Central Authority.

▪ Functions of National Legal Services Authority

- **Frame the most effective and economical schemes** for the purpose of making legal services available to the weaker sections of the society.
- Take **necessary steps by way of social justice litigation** with regard to consumer protection, environmental protection or any other matter of special concern to the weaker sections of the society and train the social workers in legal skills for promotion of justice.
- Undertake and **promote research in the field of legal services** with special reference to the need for such services among the poor.
- To do all things necessary for the purpose of **ensuring commitment to the fundamental duties** of citizens enshrined under Part IVA of the Indian Constitution.
- Monitor and evaluate implementation of the legal aid programmes and schemes at periodic intervals and also provide for their independent evaluation. It also provides grants-in-aid for specific schemes to various voluntary social service institutions and the State and District Authorities.
- Develop, in consultation with the Bar Council of India, **programmes for clinical legal education** and promote guidance and **supervise the establishment and working of legal services clinics in universities, law colleges and other institutions.**

- Make special efforts to enlist the support of voluntary social welfare institutions working at the grass-root level, particularly among the Scheduled Castes and the Scheduled Tribes, women and rural and urban labour.
- Co-ordinate and monitor the functioning of State Authorities, District Authorities, Supreme Court Legal Services Committee, High Court Legal Services Committees, Taluk Legal Services Committees, voluntary social service institutions and other legal services organisations.

▪ **Supreme Court Legal Services Committee**

- The Central Authority shall constitute a committee to be called the Supreme Court Legal Services Committee for the purpose of exercising such powers and performing such functions as may be determined by regulations made by the Central Authority.
- The members of the Committee shall be nominated by the Chief Justice of India. The Committee shall consist of
 - a) a sitting Judge of the Supreme Court who shall be the Chairman;
 - b) such number of other members possessing such experience and qualifications as may be prescribed by the Central Government.

LOK ADALATS

- Every State Authority or District Authority or Supreme Court Legal Services Committee or every High Court Legal Services Committee or, Taluk Legal Services Committee may organise Lok Adalats.
- Every Lok Adalat organised for an area shall consist of such number of serving or retired judicial officers and other members as may be prescribed by any of the respective Authorities.
- A Lok Adalat shall have jurisdiction to determine and to arrive at a compromise or settlement between the parties to a dispute in respect of
 - a) any case pending before ;or
 - b) any matter which is falling within the jurisdiction of, and is not brought before, any Court for which the Lok Adalat is organised.
- Lok Adalat shall have no jurisdiction in respect of any case or matter relating to an offence not compoundable under any law.
- **Non-compoundable cases are serious criminal cases which cannot be quashed and compromise is not allowed between the parties. It is always registered in the name of state. Eg. State of Maharashtra vs XYZD.**
- Under a Non-Compoundable offense, full trial is held which ends with the acquittal or conviction of the offender, based on the evidence presented in a Court of Law.

Functions of Lok Adalat

- Lok Adalat while hearing a case can summon and enforce the attendance of any witness and examine him/her on oath, can make discovery of documents, can receive evidence, can ask for requisitioning of any public record or document or copy of such record or document from any court or office.
- Lok Adalat can specify its own procedure for the determination of any dispute. All the proceedings before a Lok Adalat shall be deemed to be judicial proceedings.
- Every award of the Lok Adalat shall be deemed to be a decree of a civil court or an order of any other court and where a compromise or settlement has been arrived at.
- Every award made by a Lok Adalat shall be final and binding on all the parties to the dispute, and no appeal shall lie to any court against the award.

ANGLO-INDIANS

- Anglo Indians were for the first time officially recognised as a specific community by the British and the term Anglo-Indian was formalised for the first time in the **Census of 1911**.
 - The **Government of India Act, 1935** identified Anglo Indians as “a person whose father or any of whose other male progenitors in the male line is or was of European descent but who is a native of India.”
 - After independence, Anglo-Indian community started leaving India on fears of reprisals and insecurity about their future in India. This insecurity led to three major waves of migration from the sub-continent.
 - The first wave of migration of Anglo-Indians came just after 1947. The second wave was in the early sixties during the time there was a push for Hindi to be made the national language which reduced chances of employment. The third wave came in the 1970s and is called by most sociologists as the ‘family reunion waves’.
 - Amid the recent decision of the government of take away reservation provided to Anglo-Indian community, certain sections of the community feel that they still need political reservation as ground realities are very different from what is perceived otherwise.
 - In this backdrop, let us understand about constitutional provisions about Anglo-Indian community and their representation in Indian legislatures as provided in Indian Constitution.
- **Constitutional Provisions about Anglo Indians**
- **Article 366 (2)** defines Anglo-Indian as a person – whose father or any of whose other male progenitors in the male line is or was of European descent but who is domiciled within the territory of India and is or was born within such territory of parents habitually resident therein and not established there for temporary purposes only.
 - **Article 331-** Representation of the Anglo-Indian Community in the House of the People. —Notwithstanding anything in article 81, the President may, if he is of opinion that the Anglo-Indian community is not adequately represented in the House of the People, nominate not more than two members of that community to the House of the People.
 - **Article 333-** Representation of the Anglo-Indian community in the Legislative Assemblies of the States - Notwithstanding anything in article 170, the Governor of a State may, if he is of opinion that the Anglo-Indian community needs representation in the Legislative Assembly of the State and is not adequately represented therein, nominate one member of that community to the Assembly.
 - According to the **10th Schedule** of the Constitution, Anglo-Indian members of Lok Sabha and State Assemblies can take the membership of any party within six months of their nomination. But, once they do so, they are bound by their party whip. The Anglo-Indian members enjoy the same powers as others, but they cannot vote in the Presidential election because they are nominated by the President.



PRIVY PURPOSE

- When the British Crown partitioned India and granted independence to the new Dominions of India and Pakistan, more than a third of the subcontinent was still covered by princely states, with rulers whose position and status within the Indian Empire had varied.
- In 1947, there were more than 560 such princely states in India, over which the British Crown had suzerainty but not sovereignty.
- In 1947, princely states covered 48% of area of pre-independent India and constituted 28% of its population. Relations with them were determined by subsidiary alliances and other treaties establishing indirect rule.
- By **The Indian Independence Act 1947**, the Crown abandoned its suzerainty, leaving the rulers of the states free to choose to accede either to India or to Pakistan, or to remain fully independent.
- Most of the States had been so dependent on the Government of India that they had little choice about accession. By the eve of independence, only a few states held out for complete independence after the British left India. Due to the diplomacy of Vallabhbhai Patel and VP Menon, Travancore, Bhopal and

Jodhpur signed the instruments of accession before 15 August 1947. Even after independence three states vacillated, namely Jammu-Kashmir, Junagadh and Hyderabad which were integrated later into Indian Union.

- In consideration of such princely states signing the Instrument of Accession, the Government of India granted to them a 'privy purse', which was a specified sum of money that was payable annually to the rulers of such States.

▪ Questions on 'Privy Purse'

- The payments of 'privy purse' were made to the former rulers under constitutional provisions of **Art. 291** and **Art. 362**. However, it was often questioned as a relic of the colonial past.
- Privy Purse conferred '**special status**' to ruling class, which continued the British practice of ruler and ruled. However, this went against the idea of "equality" and egalitarianism as enshrined in the Constitution of India.
- Moreover, 'privy purse' was an added economic pressure on a newly born independent nation, that was ridden with **poverty, hunger and security challenges**.
- Even India's first Prime Minister Jawaharlal Nehru was not very much in favour of giving annual fees to the rulers of former Indian States but had to accede considering a long term bargain for their accession to Indian Union.

▪ Abolition of Privy Purse

- Granting of an assured sum of money to the royal family by the government was seen as a move against the common public and this plank was utilised by Mrs. Indira Gandhi to consolidate her position in the eyes of Indian public when the old timers in Congress Party revolted against her.
- Mrs. Indira Gandhi as Prime Minister, first in 1970 tried to bring a constitution amendment to abolish Privy Purse but the move was shot down in Rajya Sabha. It was then issued as an ordinance which was struck down by Supreme Court.
- So, during the election campaign of 1971 after nationalisation of banks, Mrs. Gandhi made abolition of Privy Purse as a major election issue and convinced the public that the move was for the public welfare and against the wealthy and rich. This move paid her rich political dividend as she won 1971 election by a thumping majority winning 352 seats in Lok Sabha.
- Thus, the Prime Minister Mrs. Indira Gandhi moved Constitution (Twenty Sixth Amendment) Act, 1971 which eventually abolished Privy Purse in India by omitting **Article 291 and 362** in the Indian Constitution.
- The Constitution Twenty Sixth Amendment further added **Article 363A** in the Constitution which not only ceased recognition granted to Rulers of Indian States but also abolished Privy Purse in India.

Reasons for abolition of 'privy purse'

- The abolition of privy purse was needed because it went against the **idea of equal rights** for all citizens, as enshrined under fundamental rights of Indian constitution.
- The concept of rulership, with 'privy purse' and special privileges was incompatible with principles of democracy, equality and social justice and it was unrelated to any current functions and social purposes including an egalitarian social order.
- Since, the government came into power on socialist promises; hence the priority of the government was to spend more on social welfare. Further, influx of refugees from Bangladesh also had added pressure on Indian exchequer. So, the government decided to abolish Privy Purse to ease its economic burden.



LOKPAL

- **The Lokpal & Lokayukta Act, 2013** provides for the establishment of a body of Lokpal for the Union and Lokayukta for States to inquire into allegations of corruption against certain public functionaries.

- The Act provides for an **Enquiry Wing** and a **Prosecution Wing** headed by their respective Directors. The inquiry wing conducts preliminary inquiry into any offence alleged to have been committed by a public servant punishable under the Prevention of Corruption Act, 1988.
- **The Prosecution Wing** headed by the Director **can file a case** in accordance with the findings of investigation report, before the **Special Court** for prosecution of public servants in relation to any offence punishable under the Prevention of Corruption Act, 1988.
- Jurisdiction of the Lokpal Act includes offices of Prime Minister, Ministers, members of Parliament, officers belonging to Group A, B, C and D and officials of Central Government.
- **Inquiry on Receipt of Complaint**
 - The Lokpal on receipt of a complaint, may **order preliminary inquiry** against any **public servant** by its Inquiry Wing or any agency including the Delhi Special Police Establishment.
 - A complaint under the Lokpal Act should be in the prescribed form and must pertain to an offence under the Prevention of Corruption Act against a public servant.
 - There is no restriction on who can make such a complaint. When a complaint is received, the Lokpal may order a preliminary inquiry by its **Inquiry Wing**, or refer it for investigation by any agency, including the CBI.
 - In respect of public servants belonging to **Group A and Group B** - shall submit its report to the **Lokpal**. In case of public servants belonging to **Group C and Group D** - the Commission shall proceed in accordance with the provisions of the **Central Vigilance Commission Act, 2003.**
 - The Act also provides for creation of **Special Courts** to hear and decide the cases arising out of the Prevention of Corruption Act, 1988 or under the Lokpal Act involving public servants.
 - The Special Courts shall ensure completion of each trial **within a period of one year** from the date of filing of the case in the Court.
- **Jurisdiction of Lokpal**
 - Lokpal can make enquiries into allegations of corruption against Prime Minister, Ministers, members of Parliament, Groups A, B, C and D officers, officials of Central Government, chairpersons, members, officers and directors of any board, corporation, society, trust or autonomous body either established by an Act of Parliament or wholly or partly funded by the Centre.
 - It also covers any society or trust or body that receives foreign contribution above Rs.10 lakhs.
- **Charges against the PM**
 - The Lokpal cannot inquire into any corruption charge against the Prime Minister if the allegations are related to international relations, external and internal security, public order, atomic energy and space, unless a full Bench of the Lokpal, consisting of its chair and all members, considers the initiation of a probe, and at least two-thirds of the members approve it.
 - Any such inquiry shall be held in camera and if the Lokpal comes to the conclusion that the complaint deserves to be dismissed, the records of the inquiry shall not be published or made available to anyone.
- **Expenses of Lokpal to be charged on Consolidated Fund of India**
 - The administrative expenses of the Lokpal, including all salaries, allowances and pensions payable to or in respect of the Chairperson, Members or Secretary or other officers or staff of the Lokpal, shall be charged upon the Consolidated Fund of India and any fees or other moneys taken by the Lokpal shall form part of that Fund.



NCLAT

- The National Company Law Tribunal is a **quasi-judicial body in India** that adjudicates issues relating to Indian companies.

- The tribunal was **established under the Companies Act 2013** and was constituted in 2016 by the government of India and is based on the recommendation of the **Justice Jain committee** on law relating to insolvency and winding up of companies.

Functions of NCLAT

- All proceedings under the Companies Act, including proceedings relating to arbitration, compromise, arrangements and reconstruction and winding up of companies shall be disposed of by the National Company Law Tribunal.
- The National Company Law Tribunal is the **adjudicating authority for insolvency resolution process of companies and limited liability partnerships under the Insolvency and Bankruptcy Code, 2016**.

Composition of NCLAT

- NCLT bench is chaired by a Judicial member who is supposed to be retired/Serving High Court Judge and a Technical member who is from Indian Corporate Law Service, ICLS Cadre.



NATIONAL HUMAN RIGHTS COMMISSION

▪ National Human Rights Commission shall consist of:

- a) a Chairperson who has been a Chief Justice of the Supreme Court;
- b) one Member who is or has been, a Judge of the Supreme Court;
- c) one Member who is, or has been, the Chief Justice of a High Court;
- d) two Members to be appointed from amongst persons having knowledge of, or practical experience in, matters relating to human rights.

The Chairperson of the: - National Commission for Minorities, National Commission for the Scheduled Castes, National Commission for the Scheduled Tribes and National Commission for Women shall be deemed to be Members of the Commission for the discharge of functions.

▪ Appointment

- The Chairperson and the Members shall be appointed by the President. Such appointment shall be made after obtaining the recommendations of a **Committee** consisting of—

- | |
|--|
| <ol style="list-style-type: none"> (a) The Prime Minister — Chairperson (b) Speaker of the House of the People — Member (c) Minister in-charge of the Ministry of Home Affairs in the Government of India — Member (d) Leader of the Opposition in the House of the People — Member (e) Leader of the Opposition in the Council of States — Member (f) Deputy Chairman of the Council of States — Member |
|--|

- No sitting Judge of the Supreme Court or sitting Chief Justice of a High Court shall be appointed to the Commission except after consultation with the Chief Justice of India.

Resignation: The Chairperson or any Member may, by notice in writing under his hand addressed to the President of India, resign his office.

Term of Office: A person appointed as Chairperson shall hold office for a term of five years from the date on which he enters upon his office or until he attains the age of seventy years, whichever is earlier. He shall be eligible for re-appointment for another term of five years. On ceasing to hold office, a Chairperson or a Member shall be ineligible for further employment under the Government of India or under the Government of any State.

▪ Functions of NHRC

- **Inquire, suo motu or on a petition presented to it by a victim or any person** on his behalf or on a direction or order of any court into complaint of
 - (i) violation of human rights or abetment thereof; or
 - (ii) negligence in the prevention of such violation, by a public servant;
- Intervene in any proceeding involving any allegation of violation of human rights pending before a court with the approval of such court.
- Visit any jail or other institution under the control of the State Government, where persons are detained or lodged for purposes of treatment, reformation or protection, for the study of the living conditions of the inmates.
- Review the safeguards provided by or under the Constitution or any other laws in India.
- Study treaties and other international instruments on human rights and make recommendations for their effective implementation.
- Undertake and promote research in the field of human rights, spread human rights literacy among various sections of society and promote awareness of the safeguards available for the protection of these rights.

▪ Powers of Enquiry & Investigation

NHRC while enquiring into any case shall have **power of a Civil Court** trying a suit under the Code of Civil Procedure, 1908, and can:

- a) summoning the witness for examining them on oath;
- b) discovery and production of any document;
- c) receiving evidence on affidavits;
- d) requisitioning any public record or copy thereof from any court or office;
- e) issuing commissions for the examination of witnesses or documents.



OHCHR

- The Office of the High Commissioner for Human Rights (UN Human Rights) is the leading UN entity on human rights. The General Assembly entrusted it with the mandate to promote and protect human rights of people around the world.
- The High Commissioner for Human Rights is the principal human rights official of the United Nations. The High Commissioner heads OHCHR and spearheads the United Nations' human rights efforts.
- UN Human Rights also plays a crucial role in safeguarding the integrity of the three interconnected pillars of the United Nations namely 1. Peace and security 2. Human Rights and 3. Development.
- UN Human Rights is part of the United Nations Secretariat and is headquartered in Geneva in Switzerland.
- It has field presences that comprise regional and country/stand-alone offices. UN Human Rights also supports the human rights components of **UN peace missions** or **political offices** and deploys human rights advisers to work with the United Nations Country teams.
- It has three divisions:

1. Thematic Engagement, Special Procedures and Right to Development Division (TESPRDD)
2. Human Rights Council and Treaty Mechanisms Division (CTMD)
3. Field Operations and Technical Cooperation Division (FOTCD)



E-Court Mission Mode Project

- The E-Courts Mission Mode Project is a national e - Governance project for ICT enablement of district and subordinate courts of the country.
- The major objectives of the Project are -

- ✓ to make whole judicial system ICT enabled by putting in place adequate and modern hardware and connectivity;
- ✓ automation of workflow management in all courts;
- ✓ electronic movement of records from taluka/trial to appeal courts;
- ✓ installation of video conferencing (VC) facility and recording of witness through Video Conferencing;
- ✓ connecting all courts in the country to the National Judicial Data Grid (NJDG) through WAN and additional redundant connectivity;
- ✓ citizen centric facilities such as electronic filing, e-payment and use of mobile applications in all courts;
- ✓ touch screen based kiosks in each court complex, full computerisation of State and district level judicial and service academies and centres.

- The entire Project has been conceptualized and implemented in Free and Open Source Software.
 - Understanding the importance and significance of the e-Courts Project for expeditious and affordable justice delivery, the Department of Justice, National Informatics Centre and other Central Government institutions coordinated and cooperated with the expert e-Committee team to bring success to the Project.
 - Important software and applications such as Case Information System, e-Filing, e-Payment, National Service and Tracking of Electronic Processes, Video Conferencing, Virtual Court, National Judicial Data Grid, a variety of mobile applications and several others have been successfully tried, tested and implemented.
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ECONOMY

(Global and Indian)



FARMERS PRODUCER ORGANISATION (FPO)

A Producer Organisation (PO) is a legal entity formed by primary producers such as farmers, milk producers, fishermen, weavers, rural artisans, craftsmen etc. It can be in the form of Producer Company, a cooperative society or any other legal form which provides for sharing of profits/benefits among the members. It is to be noted that PO is a generic name for an organization of producers of any produce, for example, agricultural, non-farm products, artisan products, etc. On the other hand, FPO is a type of PO where the members are farmers. The FPOs can be registered as **Cooperatives (under Cooperative Societies Act of the respective State)**, **Farmer Producer Company (Under Companies Act, 2013)** or **Societies (under Society Registration Act, 1860)**.

Let us understand some of the essential features of Farmer Producer Organisations (FPOs).

- **First**, it is formed by a group of farmers who act as shareholders in the organisation.
- **Second**, it is a registered legal entity in the form of Cooperatives, Farmer Producer companies (FPCs) or Societies.
- **Third**, it works for the benefit of the farmers and deals with various business activities related to agriculture such as procurement of agricultural inputs, marketing of agricultural commodities etc.
- **Fourth**, a certain part of the profits of the organisation is shared among the farmers and rest of the funds is used for business expansion of the organisation.

▪ Difference between Farmer Producer Companies (FPCs) and Cooperatives

The farmer producer companies (FPCs) are considered to be much better than farmer cooperatives. Some of the salient features that provide the FPCs a competitive edge is:

- **First**, the cooperatives are registered under the Cooperative Societies Act and hence Registrar of Cooperatives and the Government hold veto power over the decisions of the cooperative society. This gives scope for political interference by the Government leading to bureaucratic delays and inefficiencies. On the other hand, the FPCs are registered under the Companies Act and only those members having transactions with the company can vote. Thus, the FPCs rule out political interference and it leads to efficient management of the company.
- **Second**, the FPC is a hybrid between a cooperative and a private limited company. It combines cooperative values of mutual benefit and professional style of functioning. The FPCs are allowed to appoint professionals to its Board of Directors. This enables the small and marginal farmers to avail inputs from the professional managers.
- **Third**, the FPCs allow registered and non-registered groups such as self-help groups (SHGs) to become members in a FPC. This enabling provision is a distinct improvement over the cooperatives, which allows only individual producers to be members.
- **Fourth**, the FPCs allow only those people who are engaged in an activity connected with or related to primary produce to be enrolled as members of FPC. This ensures that outsiders do not capture the control of the company.
- **Finally**, unlike the cooperatives, FPCs have stronger regulation which demands regular disclosure and reporting. This empowers the farmers to demand operational and fiscal discipline and thus promote greater accountability of the FPCs.

▪ Initiatives for the Promotion of FPOs

The co-operative movement in India got fillip through the Anand model or AMUL. However, subsequently, the cooperatives across India failed to live up to the expectation due to multiple challenges such as political

interference, exclusion of small and marginal farmers, growing bureaucratisation etc. Accordingly, the Indian Government constituted a High Powered Committee under the leadership of **Yogendra Alagh**. On the basis of recommendations of this committee, the government amended the Companies Act, 1956 in 2012-13 to provide for "Producer Companies" in India.

- The **Small Farmers Agribusiness Consortium (SFAC)** is the nodal agency at the national level for the creation of FPOs. The SFAC operates a Credit Guarantee Fund to mitigate credit risks of financial institutions which lend to the FPCs without collateral. This helps the FPCs to access credit from financial institutions for establishing and operating businesses. Further, SFAC also provides matching equity grant up to Rs. 10 lakhs to double the share capital of FPCs.
- NABARD also provides financial support to the FPOs through two dedicated funds. It has created "**Producers Organization Development Fund (PODF)**" in 2011, to support the FPOs through credit facilitation, capacity building and market linkage support. Further, the Government of India has set up **PRODUCE Fund (Producers' Organization Development and Upliftment Corpus)** under the NABARD in 2014-15 for building of 2000 Farmer Producer Organizations (FPOs) in the country. The aim of the PRODUCE Fund is to promote new FPOs and support their initial financial requirements, to make them credit worthy, commercially vibrant and sustainable business enterprise of farmers.

▪ **Challenges and Issues in Building FPCs**

- **Lack of Professional Management of FPCs:** As discussed before, the FPCs have been allowed to appoint professional experts to the Board of directors in order to efficiently manage their operations. However, such trained manpower is presently not available in the rural areas to manage FPO business professionally.
- **Poor Financial Resources:** FPCs are mostly owned by Small and Marginal Farmers with poor resource base and hence they are not financially strong enough to support the members. This reduces the ability of the FPCs to cater to the needs of the farmers such as access to inputs and market.
- **Inadequate Access to credit:** It has been observed that banks and financial institutions tend to refuse to lend to FPCs due to disaggregated land holdings and lack of collateral. Small and marginal farmers, who may not hold formal land titles, are unable to access institutionalised credit.
- **Inadequate Access to Infrastructure:** The FPCs have inadequate access to basic infrastructure required for aggregation like transport facilities, storage, value addition (cleaning, grading, sorting, etc.) and processing, brand building and marketing.
- **Lack of technical Skills/ Awareness:** Presently, there is lack of awareness among the farmers about the potential benefits of joining FPCs. Further, most of the farmers are not aware about the legal and technical knowledge about various acts and regulations related to formation of FPCs.

The FPCs can indeed emerge as game changer in order to alleviate the present agrarian distress. However, the Government and all the stakeholders need to create a right ecosystem in order to nurture and develop the FPCs.

- The promotion of FPCs should not to be seen as a one-time exercise. Though there is sufficient focus on providing financial assistance to FPCs, there is limited hand-holding subsequent to their formation. After mobilisation of farmers into FPC, there is very little support in marketing, value addition etc. In this regard, the Government must provide for sustained and continuous support until the time the FPCs become financially viable and independent.

CODE ON SOCIAL SECURITY BILL 2020

This bill seeks to provide social security benefits such as Provident Fund, Insurance etc. to the workers. It seeks to replace nine laws related to social security. These include the Employees' Provident Fund Act, 1952; the Maternity Benefit Act, 1961; and the Unorganised Workers' Social Security Act, 2008.

▪ Social Security Entitlements

- **Provision:** The 2020 Bill states that the central government through notification provide that Industries employing workers above a certain threshold level would be required to make contributions towards various social security benefits such as Provident Fund, Insurance etc.
- **Reasons for Opposition:** Presently, the threshold level for the contribution towards Social Security scheme has been provided under the law itself. For example, Employees Provident Fund Act, 1952 is applicable to all Industries employing more 20 people. The EPF is not compulsory for all employees. Only those who earn up to Rs 15,000 a month have to contribute 12% of their basic salary plus dearness allowance to EPF. The employer contributes an equal percentage (12%) to the corpus out of which 3.67% goes to the EPF and the rest 8.33% goes towards employees' pension scheme (EPS).

However, the 2020 Bill gives the discretionary power to the Government to lay down the criteria for the eligibility for the contribution to Social Security Schemes. This has been criticised on account of following reasons:

1. Excessive Delegated Legislation.
2. Exclusion of Informal Workers in the Small-Scale Industries from Social Security benefits
3. Against the Idea of Universal Social Security put forward by National Commission on Labour.

▪ Expanded Coverage of Workers

- **Provision:** The government can make provisions for registration of various categories of workers- Unorganised, Gig Workers and Platform workers. It can also notify schemes for their social security. **Gig workers** refer to workers outside the traditional employer-employee relationship. **Platform workers** are those who access organisations or individuals through an online platform and provide services or solve specific problems.
- **Reasons for Opposition:** Lack of Clarity in the definition of Unorganised Worker, Gig Worker or Platform Worker. For example, Ola Cab Driver can be considered to be belonging to all the 3 different categories simultaneously.

▪ Mandatory Linking with Aadhaar

- **Provision:** Employee or a worker (including an unorganised worker) must provide his Aadhaar number to receive social security benefits
- 1. **Reasons for Opposition:** This may violate the Supreme Court's judgement in Puttaswamy Case. In its judgement, the Court had ruled that the Aadhaar card/number may only be made mandatory for expenditure on a subsidy, benefit or service incurred from the Consolidated Fund of India.



CODE ON WAGES, 2019

- **Objective:** It seeks to regulate wage and bonus payments in all employments where any industry, trade, business, or manufacture is carried out. The Code replaces the following four laws: (i) *the Payment of Wages Act, 1936*; (ii) *the Minimum Wages Act, 1948*; (iii) *the Payment of Bonus Act, 1965*; and (iv) *the Equal Remuneration Act, 1976*.
- **Coverage:** The Code will apply to all employees. The central government will make wage-related decisions for employments such as railways, mines, and oil fields, among others. State governments will make decisions for all other employments.
- **Floor wage:** According to the Code, the central government will fix a floor wage, taking into account living standards of workers. Further, it may set different floor wages for different geographical areas.
- The minimum wages decided by the central or state governments must be higher than the floor wage. In case the existing minimum wages fixed by the central or state governments are higher than the floor wage, they cannot reduce the minimum wages.

- **Fixing the minimum wage:** The Code prohibits employers from paying wages less than the minimum wages. Minimum wages will be notified by the central or state governments.
- While fixing minimum wages, the central or state governments may take into account factors such as: (i) skill of workers, and (ii) difficulty of work.
- **How the Code on Wages would benefit?**
 - **Expansion in coverage of Employees:** The Code proposes to do away with the concept of bringing specific jobs under the Act by the Centre and states and mandates that minimum wages be paid for all types of employment – irrespective of whether they are in the organized or the unorganized sector.
 - **Introduction of National Minimum Wage:** The Code introduces a national minimum wage which will be set by the central government. This will act as a floor for state governments to set their respective minimum wages.
 - **Easier compliance of law:** The Code introduces the concept of a ‘facilitator’ who will carry out inspections and also provide employers and workers with information on how to improve their compliance with the law. Further, there are 12 definitions of wages in the different Labour Laws leading to litigation besides difficulty in its implementation. The definition has been simplified and is expected to reduce litigation and will entail at lesser cost of compliance for an employer.
- **Concerns with Code on Wages 2019**
 - **Poor Consolidation of Labour Laws:** The Code on Wages, 2019 seeks to consolidate and simplify four laws into a single code. While the previous four pieces of legislation had a total of 119 sections, the new Code has 69 sections. However, the reduction in the number of sections is not on account of synergistic consolidation, but rather on account of Delegated legislation.
 - Earlier, the number of provisions were incorporated in the act itself, but now under the Code on wages 2019, these provisions have been converted into rules to be formulated by the Government. Hence, if we combine the Code of wages 2019 along with the rules formulated under it, it would be much bulkier and more complex as compared to previous 4 laws.
 - **Violation of Article 50:** Code of Wages 2019 provides that an officer (not below the rank of an under-secretary to the government) will be notified with power to impose a penalty in the place of a judicial magistrate. This is in clear violation of Article 50 of the Indian Constitution, which calls for separation of Executive from the Judiciary.
 - **Provisions on Penalty:** The penalties/fines imposed under the Code on wages, 2019 are quite meagre and hence may not be sufficient enough to discourage the firms from violation of the law. Further, the violations under the law are considered to be compoundable offences and not non-compoundable. (Compoundable offences are usually non-serious in nature and hence can be compromised between the two parties. However, non-compoundable offences cannot be compromised). Hence, the law can be considered to be mere paper tiger.

Exemptions from Violation of Provisions: The Code exempts employers from penal provisions if they were able “to prove that they had used due diligence in enforcing the execution of the code and it was the other person who had committed the offence without his knowledge or consent.

INDUSTRIAL RELATIONS (IR) CODE BILL

The Code provides for the recognition of trade unions, notice periods for strikes and lock-outs, standing orders, and resolution of industrial disputes. It subsumes and replaces three labour laws: The Industrial Disputes Act, 1947; the Trade Unions Act, 1926; and the Industrial Employment (Standing Orders) Act, 1946.

Provision: The 2020 Bill introduces provisions on fixed term employment. Fixed term employment refers to workers employed for a fixed duration based on a contract signed between the worker and the employer.

▪ **Benefits of Fixed Term Employment:**

- Allow employers the flexibility to hire workers for a fixed duration and for work that may not be permanent in nature.
- Fixed term contracts are negotiated directly between the employer and employee and reduce the role of a middleman such as an agency or contractor.
- Benefit the worker since the Code entitles fixed term employees to the same benefits (such as medical insurance and pension) and conditions of work as are available to permanent employees.
- Improve the conditions of temporary workers in comparison with contract workers who may not be provided with such benefits.

▪ **Reasons for Opposition:**

- Unequal bargaining powers between the worker and employer could affect the rights of workers.
- Employer has the power to renew contracts and hence lead to job insecurity
- The Bill does not restrict the type of work in which fixed term workers may be hired. Therefore, they may be hired for roles offered to permanent workmen.

▪ **Recommended improvements**

- The **Second National Commission on Labour (2002)** had recommended that no worker should be kept continuously as a casual or temporary worker against a permanent job for more than two years.
- The **International Labour Organisation (ILO)** has highlighted that several countries restrict the use of fixed term contracts by: (i) limiting renewal of employment contracts (Example- Vietnam, Brazil and China allow two successive fixed term contracts), (ii) limiting the duration of contract (Example- Philippines limits it up to a year), or (iii) limiting the proportion of fixed term workers in the overall workforce.
- These recommendations of the Second National Commission on Labour and ILO need to be incorporated in the 2020 Bill.

▪ **Applicability of Standing Orders:**

- **Provision:** The 2020 IR Code bill provides that all industrial establishment with 300 workers or more must prepare standing orders on the matters related to: (i) classification of workers, (ii) manner of informing workers about work hours, holidays, paydays, and wage rates, (iii) termination of employment, and (iv) grievance redressal mechanisms for workers.
- **Reasons for Opposition:** The IR Code bill 2019 was applicable to establishments employing more than 100 workers. The threshold for the applicability to Industries has been increased to 300 in the IR Code Bill 2020. This means that Small Scale Industries employing less than 300 workers would no longer be required to lay down standing orders and hence may lead to exploitation of workers.

▪ **Closure and Lay-off**

- **Provision:** Under the 2019 Bill, an establishment having at least 100 workers was required to seek prior permission of the government before closure, lay-off, or retrenchment. Lay-off refers to an employer's inability to continue giving employment to a worker in the face of adverse business conditions. Retrenchment refers to the termination of service of a worker for any reason other than disciplinary action. The 2020 Bill provides that prior permission will be required for establishments with at least 300 workers.
- **Reason for Opposition:** Increase in threshold from 100 to 300; Enable small scale Industries to hire and fire workers at will.

▪ **Strikes and Lockouts**

- **Provision:** The 2020 Bill requires all persons to give a prior notice of 14 days before a strike or lock-out. This notice is valid for a maximum of 60 days. The Bill also prohibits strikes and lock-outs: (i) during and up to seven days after a conciliation proceeding, and (ii) during and up to sixty days after proceedings before a tribunal.
- **Reason for Opposition:** Impacts the ability of the workers to carry out Strike or lock-out; Decreases their bargaining power.

▪ **Power to Exempt Industries**

- **Provision:** Provides the government with the power to exempt any new industrial establishment or class of establishment from any or all of its provisions if it is in "Public Interest".
- **Reason for Opposition:** Factories Act, 1948 permitted exemptions from its provisions only in cases of public emergency and limited such exemption to three months. However, under the IR Code Bill 2020 there is no limit on time duration for which Industries can be exempted. Further, the term "Public Interest" could be interpreted broadly and hence government has wide discretion in providing exemptions.

OCCUPATIONAL SAFETY, HEALTH AND WORKING CONDITIONS CODE BILL

The Code seeks to regulate health and safety conditions of workers. It subsumes and replaces 13 labour laws relating to safety, health and working conditions. These laws include: Factories Act, 1948; Mines Act, 1952; Dock Workers Act, 1986; Contract Labour Act, 1970; and Inter-State Migrant Workers Act, 1979.

▪ **Threshold for Coverage of Establishments**

- **Provision:** The 2020 Bill defines a factory as any premises where manufacturing process is carried out and it employs more than: (i) 20 workers, if the process is carried out using power, or (ii) 40 workers, if it is carried out without using power.
- **Reasons for Opposition:** Safety Standards should be applicable to all Industries irrespective of size.

▪ **Power to Exempt Industries**

- **Provision:** Empowers the Government to exempt any new factory from the provisions of the Code in order to create more economic activity and employment.
- **Reasons for Opposition:** Factories Act, 1948 provided for exemption only in cases of Public Emergency and for a limited time duration of 3 months. The new provision has led to higher discretionary powers to Government.

▪ **Benefits for Inter-State Migrants**

Provision: Benefits for Inter-State Migrant Workers in the form of:

- Option to avail PDS either in Native State or state of employment.
- Insurance and Provident Fund Benefits
- Create a database of Inter-State Migrant Workers

Reasons for Opposition: Need to implement 'One-Nation One Ration Card' faster; Need to have proper coordination between Centre and States.



TRADE AGREEMENTS

1. **Preferential Trade Agreement (PTA):** It is agreement whereby the countries may decide to reduce the customs duty on commonly agreed goods. Usually, the list of goods on which the customs duty is to be reduced is part of **Positive List**. In general PTAs do not cover substantially all trade. **Example:** India-Afghanistan PTA (2003)

2. **Free Trade Agreement (FTA):** It is a **bilateral agreement** whereby the countries may decide to reduce or eliminate the customs duty on commonly agreed goods. Usually, the list of goods on which the customs duty would not be reduced is part of **Negative list** and on all other goods the customs duty is eliminated. Normally, the FTAs cover trade in goods or trade in services. FTAs can also **cover other areas** such as intellectual property rights (IPRs), investment, government procurement and competition policy, etc.
Example: India-ASEAN FTA in Goods
3. **Comprehensive Economic Cooperation Agreement (CECA)/Comprehensive Economic Partnership Agreement (CEPA):** These terms describe agreements which consist of an integrated package on goods, services and investment along with other areas including IPR, competition etc. The **India Japan CEPA** is one such example and it covers a broad range of other areas like trade facilitation and customs cooperation, investment, competition, IPR etc.
4. **Custom Union:** In a Customs union, member countries may decide to **trade at zero duty among themselves**, however they maintain common customs duty against rest of the world. An example is **Southern African Customs Union (SACU)** amongst South Africa, Lesotho, Namibia, Botswana and Swaziland.
5. **Common Market:** Integration provided by a **Common market is one step deeper** than that by a Customs Union. A common market is a **Customs Union** with provisions to facilitate free movements of labour and capital.
6. **Economic Union:** Economic Union is a Common Market extended through further harmonization of fiscal/monetary policies and shared executive, judicial and legislative institutions among the member countries. **European Union (EU)** is an example.



BANKING TERMS

NPA: A loan is categorized as NPA if it is due for a period of more than 90 days. Depending upon the due period, the NPAs are categorized as under:

- **Sub-Standard Assets:** > 90 days and less than 1 year
- **Doubtful Assets:** greater than 1 year
- **Lost Assets:** loss has been identified by the bank or RBI, but the amount has not been written off wholly.

Provisioning Coverage Ratio (PCR): Under the RBI's provisioning norms, the banks are required to set aside certain percentage of their profits in order to cover risk arising from NPAs. It is referred to as "**Provisioning Coverage ratio**" (PCR). It is defined in terms of percentage of loan amount and depends upon the asset quality.

As the asset quality deteriorates, the PCR increases. The PCR for different categories of assets is as shown below:

- **Standard Assets** (No Default): 0.40%
- **Sub-standard Assets** (> 90 days and less than 1 year): 15%
- **Doubtful Assets** (greater than 1 year): 25%-40%
- **Loss Assets** (Identified by Bank or RBI) : 100%

Gross and Net NPA: Gross NPA refers to the total NPAs of the banks. The Net NPA is calculated as **Gross NPA - Provisioning Amount**.

Special Mention Accounts (SMA): Special Mention Account (SMA) Category has been introduced by the RBI in order to identify the incipient stress in the assets of the banks and NBFCs. These are the accounts that have not-yet turned NPAs (default on the loan for more than 90 days), but rather these accounts can potentially become NPAs in future if no suitable action is action. The SMA has the various sub-categories as shown below:

- **SMA-0:** Principal or interest payment not overdue for more than 30 days but account showing signs of incipient stress
- **SMA-1:** Principal or interest payment overdue between 31-60 days
- **SMA-2:** Principal or interest payment overdue between 61-90 days
- **Note:** If the Principal or interest payment is overdue for more than 90 days, then the loan is categorized as NPA.

Leverage Ratio (LR): The Basel Committee on Banking Supervision (BCBS) introduced Leverage ratio (LR) in the **2010 Basel III package of reforms**. The Formula for the Leverage Ratio is **(Tier 1 Capital/ Total Consolidated Assets) ×100** where Tier 1 capital represents a bank's equity.

It is to be noted that the **Tier 1 capital adequacy ratio (CAR)** is the ratio of a bank's core tier 1 capital to its total risk-weighted assets.

On the other hand, **leverage ratio is a measure of the bank's core capital to its total assets**.

Thus, the Leverage ratio uses tier 1 capital to judge how leveraged a bank is in relation to its consolidated assets whereas the tier 1 capital adequacy ratio measures the bank's core capital against its risk-weighted assets.

Liquidity Coverage Ratio (LCR): A failure to adequately monitor and control liquidity risk led to the Great Financial Crisis in 2008. To improve the banks' short-term resilience to liquidity shocks, the Basel Committee on Banking Supervision (BCBS) introduced the LCR as part of the Basel III post-crisis reforms.

- The LCR is designed to ensure that banks hold a **sufficient reserve of high-quality liquid assets (HQLA)** to allow them to survive a period of significant liquidity stress lasting 30 calendar days.
- HQLA are cash or assets that can be converted into cash quickly through sales (or by being pledged as collateral) with no significant loss of value.
- The LCR requires banks to hold a stock of HQLA at least as large as expected total net cash outflows over the stress period of 30 days.

$$\frac{\text{Stock of HQLA}}{\text{Total net cash outflows over the next 30 calendar days}} \geq 100\%$$

- **Total net cash outflows** are defined as the total expected cash outflows minus the total expected cash inflows arising in the stress scenario.



FOREX RESERVES

- The Forex reserves in India comprise of **Foreign Currency assets (FCAs)**, **Special Drawing Rights (SDRs)** and **Gold**.
- **Foreign Currency Assets (FCAs):** This is the largest component of the Forex Reserves consisting of US dollar and other major global currencies such as Euro, Pound, yen etc. Additionally, it also comprises investments in US Treasury bonds, bonds of other selected governments, deposits with foreign central and commercial banks. Even though, Foreign Currency Assets (FCA) is maintained in major currencies, the foreign exchange reserves are denominated and expressed in US dollar terms.
- **Special Drawing Rights (SDRs):** The SDRs was created by the International Monetary Fund (IMF) as an international reserve asset in the year 1969 to supplement its member countries' official reserves. The SDR is a basket of 5 currencies- Dollar, Euro, Pound, Yen and Yuan. The SDR is neither a currency nor a claim on the IMF. Rather, it is a potential claim on the freely usable currencies of IMF members. SDRs can be exchanged for these currencies. The SDR value in terms of the U.S. dollar is determined daily by the IMF.



EXCHANGE TRADED FUND (ETF)

- ETF is a fund that is created by pooling together assets and then dividing this cumulated asset into individual units that are traded on the stock exchange. The value of the ETF comes from the value of the underlying assets (shares of stock, bonds, foreign currency, etc.). These ETFs are listed in the stock exchanges are similar to like shares and can be traded like ordinary shares. In nature, the ETFs are index funds because they comprise of shares of different companies.
- A bond ETF invests in a basket of bonds in the underlying index. It can invest in the government, corporate, or public sector unit bonds.

■ Features of Bharat Bond ETF

- The Bharat ETF will be a basket of bonds issued by CPSE/CPSU or any other Government organization. These Bonds will be tradable on secondary market.
- The unit size of Bharat bond ETF has been kept at smaller value of Rs 1000 to attract retail investors. Each ETF will have a fixed maturity date with 2 maturity series - 3 years and 10 years. The index will be constructed by an independent index provider, National Stock Exchange.

■ Benefits of Bharat Bond ETF

For Investors

- Safety as they are investing in government bonds;
- Liquidity as they are tradable on exchange;
- Since unit value is only Rs. 1000 it provides for easy and low-cost access to bond markets thereby increasing the participation of retail investors who are currently not participating in bond markets due to liquidity and accessibility constraints.

For CPSEs

- Additional source of meeting their borrowing requirements apart from bank financing.
- It will expand their investor base through retail participation which can increase demand for their bonds.
- With increase in demand for their bonds, these issuers may be able to borrow at reduced cost thereby reducing their cost of borrowing over a period of time.

Overall Impact: This is expected to eventually increase the size of bond ETFs in India leading to achieving key objectives at a larger scale - deepening bond markets, enhancing retail participation and reducing borrowing costs.



WTO:DISPUTE SETTLEMENT MECHANISM

Settling disputes is the responsibility of the Dispute Settlement Body which consists of all WTO members. The Dispute Settlement Body has the sole authority to establish "panels" of experts to consider the case, and to accept or reject the panels' findings or the results of an appeal.

- **First stage:** Consultation (up to 60 days). Before taking any other actions the countries in dispute have to talk to each other to see if they can settle their differences by themselves.
- **Second stage:** If consultations fail, the complaining country can ask for a panel to be appointed. The panel's final report should normally be given to the parties to the dispute within six months. The report becomes the Dispute Settlement Body's ruling or recommendation unless a consensus rejects it. This entire process should be completed within 1 year.
- **Appeal Stage:** Either side can appeal a panel's ruling. Each appeal is heard by three members of a permanent seven-member Appellate Body set up by the Dispute Settlement Body and broadly representing

the range of WTO membership. Members of the Appellate Body have four-year terms. They have to be individuals with recognized standing in the field of law and international trade, not affiliated with any government. The appeal can uphold, modify or reverse the panel's legal findings and conclusions. The Dispute Settlement Body has to accept or reject the appeals report and rejection is only possible by consensus.



INCLUSIVE GROWTH

- India has made rapid strides in its economic growth wherein the GDP size has increased from \$ 275 bn in 1991 to \$ 2.7 trillion in 2019. It is also considered to be the fastest growing major economies across the world. However, such a growth model has failed to promote balanced, equitable and inclusive growth. For instance, India's ranking on various Human Development Indicators such as HDI, Global Hunger Index (GHI), Multi-dimensional Poverty Index (MPI), Environmental Performance Index etc. continues to be remain poor. Similarly, the PLFS report has highlighted that the unemployment has increased to 45-year high of 6.1%.
 - There are number of reasons for the poor outcomes of India's growth story. **Firstly**, the Government has excessively focused on enhancing the GDP growth rates without giving due emphasis on enhancing human capabilities. For instance, India's expenditure on Education and Health is hardly around 3% and 1.3% of the GDP respectively.
 - **Secondly**, Government has failed to incorporate bottom-up and people-centered approach in its policies which could have empowered the people and led to better outcomes. The Government has excessively focused on improving "Ease of doing Business" to attract foreign capital, but it has failed to focus on improving "Ease of living" of its citizens.
 - **Thirdly**, most of the Government schemes and programmes are considered to be top-down in approach without the involvement of the stakeholders. For instance, one of the reasons for the success of the MGNREGA programme is its participatory approach wherein the Gram Sabha members decide on the utilization of MGNREGA Funds. However, other government schemes and programmes have failed to incorporate such a participatory approach leading to less than satisfactory results.
- **Steps required to improve the development outcomes**
- India's growth outcomes can be improved by learning from the development models followed by China and some of the states in India. Even though China is non-democratic country, it has given due emphasis on Human Development which is evident in China's better ranking on various Human Development Indicators as compared to India. On the other hand, in spite of being democratic country, India is yet to reach the level of development which China attained way back in 1990s. Thus, there is a need to adopt people-centered policies rather than growth-centered policies to have better outcomes.
 - Similarly, some of the states in India have also taken a lead and shown as to how bottom-up and people-centered policies can have transformative impact on the lives of the people. For instance, Kerala Government has followed "Participative Model" of Governance in order to empower the people at the grassroots level. It has emerged as the frontrunner in empowering the Panchayati Raj Institutions with the constitutionally mandated functions and finances. It has also focused on the women empowerment through the "Kudumbashree" Scheme, which is considered to be a model scheme for multi-faceted development of women. Such a participative model of Governance has enabled Kerala to be well ahead of all other states and match China in terms of Human Development Indicators.
 - Similarly, the Delhi Government has adopted "Common man's Model", wherein it has kept the common man at the Centre of the various government policies and schemes. It has given due emphasis on Health and Education and in order to ensure success of Government's intervention, it has focused on the active participation of the stakeholders.

- For instance, it has established the **School Management Committees** which involves the parents. The budget for training teachers has increased by more than five times. This has enabled the Delhi's Government schools to have much better performance than the private schools. Similarly, the Public health expenditure has more than doubled. Mohalla Clinics have been set up in the poor colonies to provide accessible and affordable health care.

▪ Way Forward

- The Government has to realize that "Ease of Living" is much wider and more comprehensive as compared to "Ease of Doing Business". While, improvement in the Ease of Doing Business can lead to increase in the private sector investment, but improvement in the "Ease of Living" can lead to both better development outcomes and attract private sector investment. This is so because a balanced, inclusive and sustainable growth can enhance the income levels of the people and attract greater amount of private sector investment.
- Ultimately, Gandhi's philosophy of putting the last man first should be the sole guiding light for the government's policies.



STAND-UP INDIA SCHEME

The "Stand-up India Scheme" has been launched to promote entrepreneurship among Scheduled Caste/Schedule Tribe and Women for loans in the range of Rs. 10 Lakhs to Rs. 100 Lakhs. The Scheme is expected to benefit large number of such entrepreneurs, as it is intended to facilitate at least two such projects per bank branch (Scheduled Commercial Bank) on an average one for each category of entrepreneur. The broad features of the scheme are as under: -

- Composite loan between Rs. 10 lakhs and upto Rs.100 lakhs, inclusive of working capital component for setting up any new enterprise.
- Debit Card (RuPay) for Withdrawal of working capital.
- Credit history of borrower to be developed.
- Refinance window through Small Industries Development Bank of India (SIDBI) with an initial amount of Rs. 10,000 crores.
- Handholding support for borrowers with comprehensive support for pre loan training needs, facilitating loan, factoring, marketing etc.
- Web Portal for online registration and support services.



FISCAL DEFICIT

The Government is said to incur deficit if its expenditure is higher than its revenue. The Government deficit is mainly measured in 3 different ways:

- **Revenue Deficit (RD):** It is calculated as (Revenue Expenditure- Revenue Receipts) i.e. it highlights the deficit in the revenue account.
- **Fiscal Deficit (FD):** It denotes the total borrowings of the Government for the entire financial year. The borrowed money may be used for meeting revenue expenditure (maintenance related expenses) as well as Capital expenditure (Creation of new assets).
- **Primary Deficit (PD):** It is calculated as Fiscal Deficit- Interest payments.

Relationship between Fiscal Deficit and Economic Growth

The developing countries such as India usually generate less amount of tax revenue. However, they are required to undertake higher amount of expenditure for the social sector (such as Education, health etc.) as well as for creating new assets and infrastructure.

Hence, they would be required to borrow money in order to meet their expenditure requirements. However, a higher amount of borrowings can increase the rate of inflation in the economy and can hence pose an adverse risk. Thus, there should be a limit on the Government's borrowings so that it does not lead to Inflation in future.

At the same time, the borrowed money should be ideally used for creating new assets and infrastructure (Capital Expenditure) rather than meeting its day-to-day maintenance related expenditure (revenue expenditure). This is because the money spent on the Capital expenditure has much higher returns unlike the maintenance related expenditure. For instance, higher investment in development of ports and airports can have a number of benefits such as creation of employment opportunities, development of infrastructure, boosting of exports etc. which in turn enhances the ability of the government to repay the borrowed money.

Thus, the Fiscal Deficit is said to be desirable in a country like India if it fulfills 2 conditions:

1. There must be limit on the fiscal deficit so that higher fiscal deficit does not lead to increase in Inflation.
2. The Fiscal Deficit must ideally be used for financing the creation of assets.

▪ Present Scenario in India

In order to ensure Fiscal Discipline and to keep fiscal deficit under check, the Parliament has formulated the Fiscal responsibility and Budgetary Management Act, 2003. Under this act, the Government has been mandated to keep the fiscal deficit at 3% of GDP by the end of 31st March 2021. At the same time, the Government has been given freedom to exceed the Fiscal deficit target by 0.5% on account of certain factors. These factors are ***national security, war, collapse of agriculture, structural reforms and decline in the GDP growth of a quarter by 3%.***

The Government has committed itself to keeping the Fiscal deficit under check by undertaking various expenditure rationalization measures. However, the Government has been spending a higher share of its fiscal deficit for the revenue expenditure rather than capital expenditure. This clearly shows that the Government has failed to optimally utilize its borrowings for undertaking expenditure for the creation of new assets. This has to be reversed by reducing the revenue deficit and by ensuring that a higher share of Fiscal deficit is used for capital expenditure.

Way Forward: In order to counter the present economic slowdown, some of the economists have highlighted that Government should not unduly be worried about the Fiscal Deficit. The Government must focus on providing fiscal stimulus measures by undertaking higher expenditure for the creation of new assets. Such higher expenditure has the potential to create more employment opportunities and boost the declining demand in the Indian economy leading to increase in the GDP growth in future.



LONG TERM REPO OPERATIONS

- The Repo rate is the rate at which the banks borrow mainly short term loans from the RBI. Under Repo mechanism, the banks sell their G-Secs to the RBI with an agreement to repurchase the G-Sec at a future date and at fixed price. The rate at which the banks repurchase the G-Secs from the RBI is known as the Repo rate.
- Depending upon the maturity period of the loans, there are different types of Repos in India. These are:

Overnight Repos: (Maturity period of 1 day);

Term Repos: There are different types of term repos depending upon the maturity period. Some of the term repos include 7-day, 14-day, 21 day, 28-day, 56-day.

- The overnight repos are available to the Banks from the RBI from Monday to Friday. However, the term repos are available to the Banks only when the RBI notifies about the Term Repos (Usually 2-3 days in a week). Further, the interest rate on the term repos is not same as the Repo rate. The Interest rate on the Term repos is determined through auction and hence is usually higher than the Repo rate.

▪ Long Term Repo Operations (LTRO)

- It is a new policy tool used by the RBI to inject more liquidity into the Economy. It is considered to be similar to the term repos, but with a longer maturity period of 1 year and 3 years. Through the LTRO, the RBI seeks to inject long term liquidity into the economy at a lower interest rate. This is so because the interest rate on the LTRO is fixed at the Repo rate (which is considered to be much lower than the rate of interest on the 1 year or 3 year loans).
- Some of the basic features of the LTRO include:

Total Funds to be injected: Up to Rs 1 Lakh crores.

Interest Rate: Repo Rate.

Method of Operations: The LTROs would be carried out through e-Kuber (The e-Kuber is the Core Banking Solution of the RBI which enables each bank to **connect their single current account** across the country. The e-Kuber is also used by RBI to execute various transactions with banks such as carrying out overnight and term repos, reverse repos etc.)

▪ Need for LTROs

The RBI has consistently been reducing the Repo rates to inject liquidity into the economy. However, the Banks have not reduced the rate of interest on loans commensurately due to the poor monetary policy transmission. Further, the rate of interest on the long-term loans has remained much higher and has hindered the investment rates within India. Hence, the RBI has carried out the LTROs for the following purposes:

1. Reduce rate of Interest on the long term loans.
2. The reduction in the long term rate of interest would force the banks to reduce the rate of interest on short term loans. (The rate of interest on long term loans is usually higher than that on short term loans).
3. Incentivise the Banks to reduce their overall lending rates and improve the monetary policy transmission.



NATIONAL TECHNICAL TEXTILES MISSION

The Mission has been launched with total outlay of Rs 1480 crores and would be implemented for period of 4 years from 2020-21 to 2023-24.

▪ Components:

- **Component -I (Research, Innovation and Development):** Promote both Fundamental and applied research for the development of new technical textiles.
- **Component -II (Promotion and Market Development):** Aims at average growth rate of 15-20% per annum taking the level of domestic market size to 40-50 Billion USD by the year 2024 from the Current \$ 16 bn.)
- **Component - III (Export Promotion):** Export promotion of technical textiles enhancing from the current annual value of approximately Rs.14000 Crore to Rs.20000 Crore by 2021-22 and ensuring 10% average growth in exports per year upto 2023-24.
- **Component- IV (Education, Training, Skill Development):** Promote technical education at higher engineering and technology levels related to technical textiles.



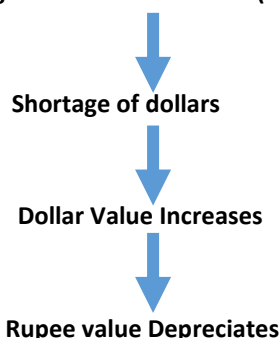
RUPEE DEPRECIATION

- Rupee Depreciation refers to decrease in the value of Rupee with respect to other currencies such as dollar, euro, pound etc. For Example: Earlier \$1= Rs 65; Now \$1= Rs 73
- As shown in the example, due to the change in the exchange rate, one would be required to pay Rs 8 more to get the same dollar.

- Hence, the dollar value is said to have appreciated and rupee value depreciated.

Why does the Rupee value depreciate? The value of the currency depends mainly on demand and supply. For Example:

Higher demand for Dollar (More Outflow) and Lower Supply of Dollar (Less Inflow of Dollar)



Thus, Rupee may depreciate on account of following factors:

▪ Impact of Rupee Depreciation on Economy

1. Impact on Imports and Exports

- In the event of Rupee Depreciation, the imports become costly while exports become competitive.
- For example, Earlier \$1 = Rs 65; Now \$1 = Rs 73
- Now, to import goods worth \$1, importers would be required to pay Rs 8 more. Similarly, on exporting goods worth \$1, exporters would earn Rs 8 More. Hence, Rupee depreciation adversely affects the importers while it benefits the exporters.

2. Impact on Balance of Trade and Current Account: India is majorly import-dependent country. Hence, costlier imports adversely affect the Trade balance and hence it leads to the widening of Current Account Deficit. It is to be noted that even though the Exports from India may increase during Rupee depreciation, it does not have much impact on Indian Economy since the imports are much higher than Exports.

3. Impact on Inflation Rate: The higher value of imported goods drives up the rate of Inflation in India leading to import-led inflation. According to RBI's Report, 5% depreciation of the currency would add about 15 basis points to domestic inflation.

4. Impact on Forex Reserves: The RBI intervenes in the forex market in order to reduce volatility in the exchange rate. The RBI sells dollars from forex reserves in order to check Rupee depreciation. Hence, this leads to decrease in volume of Forex reserves.

5. Impact on External Commercial Borrowings (ECBs): Raising money via the ECB route has emerged as a favourite mechanism among companies. However, depreciating rupee poses risk to external commercial borrowing (ECB) as the cost of borrowing goes up.



GEOGRAPHICAL INDICATION (GI) TAG

- A GI is primarily an agricultural, natural or a manufactured product (handicrafts and industrial goods) originating from a definite geographical territory. Such a name conveys an assurance of quality and distinctiveness which is essentially attributable to its origin in that defined geographical locality.
- GI tag is covered under WTO's Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).
- India has enacted the Geographical Indications of Goods (Registration and Protection) Act, 1999 to promote and protect GI tags in India.

Benefits: A geographical indication right enables those who have the right to use the indication to prevent its use by a third party. It provides legal protection to Indian Geographical Indications which in turn boost exports. It promotes economic prosperity of producers of goods produced in a geographical territory.

Application for the registration of a geographical indication: Any association of persons, producers, organisation or authority established by or under the law can apply for registration of GI Tag. The applicant must represent the interest of the producers.

Validity: The registration of a geographical indication is valid for a period of 10 years. However, it can be renewed from time to time for further period of 10 years each.

▪ **How is GI Tag different from a trademark?**

- A trademark is a sign which is used in the course of trade and it distinguishes goods or services of one enterprise from those of other enterprises.
- Whereas a geographical indication is an indication used to identify goods having special characteristics originating from a definite geographical territory.

SOCIETY

(Social Issues and Social Justice)



FEMALE FOETICIDE AND INFANTICIDE

- Since 1990, approximately 15.8 million girls in India have been eliminated through sex-selective abortion and other forms of prenatal sex selection.
- Nearly 550,000 girls are selectively aborted every year in India.
- In India today, approximately 111 boys are born for every 100 girls.
- Approximately 4.1% of all female live births since 1990 have been prevented by the practice of sex-selective abortion.

- A sex ratio represents the number of males to females in a population.
- A sex ratio at birth represents the number of males to females born in a given year. In most countries, the sex ratio at birth ranges between 103-107 boys born for every 100 girls.
- In countries where the sex ratio at birth far exceeds 107, this is an indication that sex selection is being practiced on a wide scale.

▪ Sex selection

- Sex selection is the elimination of unwanted daughters (or sons) through preconceptional, prenatal, or postnatal means.
- **Preconceptional means** of sex selection include selective in vitro fertilization (IVF) methods including sperm sorting.
- **Prenatal means** include sex-selective abortion and destruction of female embryos conceived through IVF.
- **Postnatal sex selection** includes female infanticide or neglect.
- Due to cultural biases against women, parents often give daughters lower priority than sons when allocating food, immunization, or providing access to health care. As a result, girls in many patriarchal societies suffer disproportionately higher mortality rates than they would if gender bias did not exist.

▪ What is sex-selective abortion?

- Sex-selective abortion is the abortion of a preborn child simply because the child's sex was not what the parents wanted.
- In countries where culturally-rooted son preference is common, sex-selective abortion is used as a means to attain a couple's desired number of sons and desired family composition. Sex-selective abortion constitutes violence against women and is a serious violation of the fundamental rights and equal dignity of women.

▪ Causes of sex-selective abortion in India

1. Son Preference - Throughout much of India, sons are often valued to carry on the family name and receive inheritance. According to traditional Hindu custom, important religious rituals such as the lighting the funeral pyre must be performed by a son to assure that parents have a good afterlife. Sons also provide parents with the assurance that they will be cared for—physically, emotionally, and financially—in sickness and old age. Daughters, on the other hand, are often seen as a burden and a net financial loss. Although illegal, the practice of dowry is still common in India, and couples will often spend a substantial amount of their savings on their daughter's dowry. Moreover, marriage in India is typically patrilocal. Upon marriage, women become part of their husband's family and lineage and typically care for their husband's parents in old age, leaving sonless couples with little support from their children in old age.

2. Declining Fertility - In recent decades, the number of children couples have in India has declined considerably. While women in India in 1970 had about 5.6 children on average, by 2018, women in India were on average having about 2.3 children over their lifetimes. Couples today also desire fewer children than they did only a few decades ago. The fact that couples are having fewer children means they have fewer opportunities to try for a son. Many couples seeking to attain their desired number of sons, while also limiting the total number of children they have, often resort to sex-selective abortion to achieve their desired family composition.

3. Unequal Status of Women - At its root, sex-selective abortion arises from discriminatory attitudes towards women and inequality between women and men in India. Women in India are often denied equal access to health care and education and are often excluded from decision-making in the family. Women in India suffer disproportionately higher mortality rates than would be expected for a country of similar socioeconomic development. Cultural biases often exclude women from inheritance rights and equal pay in employment. Women are often coerced or forced into selectively aborting their daughters by relatives or spouses. Studies have shown that men and women with gender equitable attitudes are significantly less likely to have a strong preference for sons.

4. Accessibility of Ultrasound Technology and Abortion - Ultrasound is widely available and accessible across India and the cost of an ultrasound scan is affordable for most Indian citizens. In India, it is illegal to determine the sex of an unborn child. Prenatal sex determination is a lucrative business, however. Despite its illegality, the prenatal sex determination via ultrasound is still practiced in many parts of the country. Abortion is also widely available and easily accessible in India. Abortion has been legal in India since 1974 when the Medical Termination of Pregnancy Act legalized abortion.

▪ Steps taken

Prior to the widespread availability of ultrasound, couples in India sought to achieve their desired number of sons by having more children, practicing traditional methods believed to increase their chances of conceiving a son, or by practicing postnatal sex selection. With the availability of amniocentesis and ultrasound technology in India during the late 1970s and early 1980s, it became possible to easily determine the sex of an unborn child prior to birth.

- **In 1983**, the Indian Parliament passed a law banning prenatal sex determination services at public hospitals and public health facilities. The law, however, did not apply to private health facilities and the practice of prenatal sex determination via ultrasound increased rapidly through private health providers.
- **In 1994**, Parliament passed a law making it illegal for anyone—including health care workers at private institutions—to reveal the sex of an unborn child. The law was called the Pre-Natal Diagnostic Techniques (Regulation and Prevention of Misuse) Act (or “PNDT Act”). The PNDT Act went into effect in 1996. The PNDT Act required ultrasound clinics to register with the government and prohibited the advertisement of prenatal sex determination services. Health care workers that violated the law could be penalized with up to three years in prison and a 10,000 rupee fine on first offense and up to five years in prison and a 50,000 rupee fine on repeat offense.
- The PNDT Act, however, was poorly enforced and the practice of sex-selective abortion continued unabated for several years after the law went into effect. In 2001, the Supreme Court of India in **CEHAT v. Union of India** found the Indian government responsible for failing to properly implement the PNDT Act and ordered the government to fully enforce the law.
- **In 2003**, Parliament added several amendments to the PNDT Act and renamed it the **Pre-Conception and Pre-Natal Diagnostic Techniques (Prohibition of Sex Selection) Act (or “PC-PNDT Act”)**. The PC-PNDT Act expanded the prohibition on sex selection to include preconceptional methods like IVF and sought to clamp down on unregulated mobile ultrasound clinics. The PC-PNDT Act also set up state-level supervisory boards

to ensure that the law was being properly implemented and to create public awareness about the societal harms of sex selection. The new law also doubled the fines for persons seeking sex determination services.

- In 2015, the government of India, in 100 select districts, launched **Beti Bachao, Beti Padhao** (Save the Girl, Educate the Girl) (BBBP), a national public awareness campaign to promote the birth, well-being, and education of girls. In 2018, the BBBP campaign was expanded to all of India. With the roll out of BBBP in 2015, the government also introduced Sukanya Samridhi Yojana, a special savings program that allows parents of daughters to open savings accounts in their daughter's name to save for post-secondary education. Sukanya Samridhi Yojana accounts earn interest at a special interest rate tax exempt.

To the present day, however, the sex ratio at birth in India still remains highly skewed towards males. In 2018, it is estimated that the sex ratio at birth was nearly **111**.

- **Possible solutions for ending India's sex-selective abortion crisis:** There are a number of steps the Government of India and other international stakeholders can take in combatting the practice of sex-selective abortion.
1. **Effective Enforcement of Laws Banning Sex-Selective Abortion** - In order to reduce the number of sex-selective abortions in India, the central, state, and union territory governments must ensure full and effective implementation of the PC-PNDT Act, including promptly holding medical practitioners that violate the law accountable. The government must ensure that all ultrasound clinics are registered, and that accurate, up-to-date records are kept. The Appropriate Authorities must also immediately investigate any clinics suspected of conducting illegal activity and must take swift action against clinics found to be in violation of the law. In districts where the law has been rigorously implemented, the practice of sex-selective abortion has declined sharply. Laws prohibiting the practice of dowry must also be rigorously enforced.
 2. **Promote the Equal Dignity and Status of Women** - Studies have shown that men and women with gender equitable attitudes and husbands who display low relationship control are significantly less likely to express a strong preference for sons. Promoting the equal dignity and status of women will reduce son preference and thus reduce the motivation for couples to engage in sex selection practices.
 3. **Public Awareness Messaging to Combat Stigma Against Girls** - Public and non-governmental stakeholders seeking to combat sex-selective abortion must promote the dignity of girls through public awareness messaging. Such messaging should not only reinforce cultural-based reasons why Indian couples desire daughters, but should also seek to advocate for the equal status of girls and their equal potential to contribute to their families. Public awareness messaging should also focus on segments of society most likely to practice sex-selective abortion. The Government of India should ensure that the national Beti Bachao, Beti Padhao campaign is fully implemented through all levels of government.
 4. **Promote the Rights of Girls to be Born and Discourage Recourse to Abortion** - Public awareness messaging must advocate for the fundamental right of girls to be born. Combatting sex-selective abortion is fundamentally a human rights issue. Unborn girls have the inherent right to be born, and women have the fundamental right not to be coerced or forced into aborting their daughters. Harmful attitudes devaluing the life of the unborn must be done away with. The government should pursue life-affirming programs for women who feel they cannot raise another daughter such as offering options for adoption or conditional cash incentive programs or tax breaks to help offset the costs of raising a daughter.
 5. **Improve Socioeconomic Development** - In the long term, improving socioeconomic development may reduce son preference, thus reducing the motivation for sex-selective abortion. However, socioeconomic development alone will not reduce the practice of sex selection in the short term. Studies have shown that

demographic groups with greater wealth, income, education and urban residence in India are in fact more likely to selectively abort daughters than their counterparts.

6. Conditional Cash Transfer Schemes and Other Incentives to Encourage Couples to Have Daughters -

Conditional Cash Transfer (CCT) programs which provide couples financial incentives to raise daughters have shown moderate success in some places. CCT programs may be more likely to succeed if they are adequately funded, consistently sustained over a long period of time, are available to a large subset of the population, have high awareness among the target population, and provide payouts that amount to real money for program beneficiaries (i.e., they provide sufficient incentive for couples to participate).

CCT programs have sometimes been criticized for providing tangible benefits for only low-income families as the payouts tend to be rather small. For middle class families, other incentives may perhaps be more beneficial such as tax breaks for parents of daughters and access to preferred interest rate loans for small business enterprise for qualifying daughters upon completion of schooling.

Starting in 2015, the Government of India, through the Sukanya Samridhi Yojana program, began offering parents of girls the option of opening special interest rate savings accounts to help save for their daughters' education and to discourage early marriage.

7. Incorporate Involvement from Women's Groups and Non-Governmental Organizations -

Non-governmental organizations (NGOs) and women's groups have an important role to play in combatting prenatal sex selection, offering expertise and on-the-ground interventions within communities to effect lasting change in improving the socioeconomic status of women and can play an important role in discouraging recourse to abortion. Studies have shown that NGOs can have a real impact on reducing the practice of sex selection.



LEARNING POVERTY

- In simple words, learning poverty is **defined as the inability of 10-year olds to read and understand a simple text.**
- It is an indicator that combines both **schooling and learning indicators.**
- It combines the share of children who haven't achieved minimum reading proficiency in schools and proportion of children who are out of school.
- According to **UNESCO data**, 53% of all children in low- and middle-income countries suffer from learning poverty.

▪ Importance of defining learning poverty

Individual level

- Reading is the key foundation to other foundational skills like numeracy, reasoning, socio-emotional skills etc.
- Education is directly related to higher productivity, economic competitiveness, employment, health and better civic engagement.
- Pathway for social mobility.

Societal level

- Learning crisis in the formative years is the leading cause of low levels of **Human Capital Formation.**
- Besides, learning crisis also undermines sustainable growth and poverty reduction.
- As a result, learning crisis will have huge economic costs for the countries.

What is Human Capital?

- Human Capital Score of say 0.5 means that a child who is born today will be only 50% productive by the age of 18 as he/she would be had he/she received complete education and full health.

- The global Human Capital Score is only **0.56 currently**.

▪ Steps taken by India

- Right-to-Education Act has ensured increased enrollment levels. Now the focus is shifting to quality.
- In this direction, India has joined the PISA 2021 for effective measurement of learning outcomes.
- PISA global education evaluation system conducted by OECD which measures Reading literacy, Science literacy and Numerical literacy.
- Besides, in 2018, India also launched the **Samagra Shiksha**, an integrated scheme for school education from pre-school to senior secondary levels.
- It subsumes the three Schemes of Sarva Shiksha Abhiyan, Rashtriya Madhyamik Shiksha Abhiyan and Teacher Education.
- The main emphasis is on improving quality of school education by focusing on the two T's - Teacher and Technology.

▪ Way forward

- Learners to be prepared and motivated to learn through early childhood education, nutrition and stimulation.
- Teachers at all levels should be effective and valued.
- Schools should be safe and inclusive.
- Classrooms should be equipped for learning.
- Teach children in the language they speak and understand.
- Ensure timely access to more and better age and skill-appropriate texts and readers.
- Assure political commitment to literacy.



TRANSGENDER PERSONS (PROTECTION OF RIGHTS) ACT

The act seeks to

- Define 'transgender'
- Recognise 'transgender persons'
- End discrimination against transgender in matters of education, health, employment etc.
- Protect the interest of transgender community by setting up a National Council for Transgender Persons

Definition of Transgender Person

- According to the act 'transgender person' is the one whose gender does not match with the gender assigned at birth.
- Transgender person is the one who is

- Neither wholly female or male;
- A combination of female and male;
- Neither female nor male;
- It also includes trans-men and trans-women, persons with intersex variations, gender-queers and other socio-cultural identities like kinner, hijra, aravani, and jogta.

▪ Recognition to transgender persons

- A person would have the right to choose to be identified as a man, woman or transgender.
- For this a transgender person may make an application to the District Magistrate for a certificate of identity, indicating the gender as 'transgender'.

- The District Magistrate will issue the certificate of identity based on the recommendations of a District Screening Committee comprising of the Chief Medical Officer, District Social Welfare Officer, a psychologist or psychiatrist, representative of the transgender community
- Besides if an individual undergoes sex reassignment surgery a revised certificate to be certified as 'transgender' may be obtained.

Prohibition against discrimination

The act prohibits the discrimination against a transgender person, including denial of service or unfair treatment in relation to:

1. Education
2. Employment: Every establishment is required to designate a person to be a complaint officer for grievance redressal.
3. Healthcare: The government must take steps to provide health facilities to transgender persons including separate HIV surveillance centres, sex reassignment surgeries, hormonal therapy etc. and provide comprehensive medical insurance coverage for the same.
4. Right to residence: Every transgender person shall have a right to reside and be included in his household. If the immediate family is unable to care for the transgender person, the person may be placed in a rehabilitation centre.

Offences and Penalties

- The act recognizes a number of offences for which punishment may include imprisonment from 6 months to 2 years and/or fine.
- The offences which attract punishment include:-

- ✓ Forcing a transgender to (a)leave the house (b) beg (c)forced or bonded labour
- ✓ Denial of access to public places
- ✓ Physical, sexual, verbal, emotional and economic abuse.

National Council for Transgender

The act also provides for constitution of a National Council for Transgender to advise the central government on policy matters related to transgender persons. The NCT shall consist of:

- ✓ Union Minister for Social Justice - Chairperson
- ✓ Minister of State for Social Justice - Vice- Chairperson
- ✓ Secretary of the Ministry of Social Justice
- ✓ One representative from ministries including Health, Home Affairs, Minority Affairs, Housing, Human Resources Development, etc.
- ✓ Representatives of the NITI Aayog, National Human Rights Commission, and National Commission for Women.
- ✓ Representatives from state governments
- ✓ 5 members from the transgender community and
- ✓ 5 experts from NGOs



MENTAL DISORDER

- **14.3% of Indians constituting 19.7 crores** suffered from mental disorders in 2017.
- The **prevalence of mental disorders has doubled** between 1990 and 2017.
- Most common among mental disorders include depression and anxiety which affected 4.6 and 4.5 crore people respectively.
- Anxiety disorders include generalised anxiety disorder (GAD), panic disorder, phobias, social anxiety disorder, obsessive-compulsive disorder (OCD) and post-traumatic stress disorder (PTSD).

- Other commonly found mental disorders include idiopathic developmental intellectual disability (10.8 per cent), and schizophrenia (9.8 per cent).
- Besides **southern states witnessed higher prevalence of adult mental disorders** compared to northern states.
- Mental disorders contribute to 4.7% of total DALYs (disability adjusted life year (DALY) — the sum of total years of life lost and years lived with disability) in India up from 2.5% in 1990.
- Under states with high socio-demographic index (SDI), incidence of depressive disorders was highest in Tamil Nadu Kerala, Goa and Telangana.
- Under states with middle SDI, Andhra Pradesh topped the list.
- Anxiety disorders were found to be more common in Kerala, Himachal Pradesh, Tamil Nadu, Karnataka, Telangana and Maharashtra

▪ **Challenges**

- **Neglect:** India spends about 0.04% of its health budget on mental healthcare.
- **Shortage of personnel:** India is also extremely short on the number of mental health professionals. According to the Ministry of Health and Family Welfare, there were 3,800 psychiatrists, 898 clinical psychologists, 850 psychiatric social workers and 1,500 psychiatric nurses nationwide, as of December 2015.
- **Stigma:** Mental disorder is widely stigmatised in Indian society and thus receive low levels of care.
- **Substance abuse:** Close to 25% of DALYs related to mental disorders are due to alcohol-related substance abuse.
- **Stress:** Stress is the major contributor to depression and anxiety related disorders.

▪ **Mental Healthcare Act, 2017**

- It aims to provide for mental healthcare and services for persons with mental illness and ensure these persons have the right to live a life with dignity by not being discriminated against or harassed.
- Every person shall have a right to access mental health care and treatment from mental health services run or funded by the government.
- It assures free treatment for such persons if they are homeless or belong to Below Poverty Line, even if they do not possess a BPL card.
- A person with mental illness shall have the right to make an advance directive that states how he/she wants to be treated for the illness and who his/her nominated representative shall be.
- Central Mental Health Authority to look after regulatory issues like registration, supervision and to set quality and standards in mental health profession.
- The act also decriminalised suicide.

▪ **India State-Level Disease Burden**

- The India State-level Disease Burden Initiative was launched in October 2015 to address the knowledge gap with support from the Ministry of Health and Family Welfare of the Government of India.
- The report describes the distribution and trends of diseases and risk factors for every state of India from 1990 to 2016.
- It is a joint effort between the Indian Council of Medical Research, Public Health Foundation of India, Institute for Health Metrics and Evaluation, and experts and stakeholders from about 100 institutions across India.

DIFFERENTLY ABLED

About 4-8% of the population in India are differently abled. One in every 10 children is born with or acquires a physical, mental or sensory disability. Despite improvement in the health care system in the country, the

situation of differently abled children remains deplorable, particularly in rural areas and among the lower socio-economic population.

▪ **Common Challenges**

1. **Differently abled children are subjected to ugly forms of discrimination:** Due to stigma associated with disabilities, families become victims of discrimination and human rights abuse. When poverty, physical neglect and social marginalization intersect, the impact on the disabled can be devastating. Differently abled children are kept hidden away at their home, denied basic rights of mobility, education and employment. They are viewed as dependent persons. Such discrimination in some cases starts from the family members and spreads right up to the policy makers and state authorities. As a result of such discrimination the differently abled children face chronic ill health, socio-economic burden and destitution. Sometimes it is so difficult to define the marginalization — they are outside the margin or within the community meaning, locked in the rooms, institutionalized, families isolating themselves.
2. **Denial of disability:** Predominantly in the cases of mental or intellectual disability, the family members are reluctant to accept the disability or refer to it as a physical illness and treatable condition. The pseudo-stigma attached to such disabilities, makes them hide the fact of having a disabled or challenged member at home ultimately leading to social isolation and restrictive behaviors. There is a fear that they would be victims of disgrace and indignity and thereby family members lose the status or acceptance they enjoy in the community. This denial becomes a hurdle for early identification and treatment.
3. **Physical restraints:** Superstitions prevailing in the communities also play a big role in subjecting the people with disabilities to various harmful treatments. The black-magicians and quacks physically hurt people, subject them to food restrictions etc. Claiming to cure the “disability” leading to acquiring disability. Families often lock or chain their children with intellectual disability having behavioral issues, due to helplessness, ignorance and/or under social pressure.
4. **Social boycott:** Preventing of CWDs participating in any social events. Even the family members of the differently abled often tend to avoid such social gatherings in shame or fear that someone would ask about their family member with disability. Differently abled children's are not exposed to any social gathering, nor does our community recognize the need for children's participation. CWDs are not been given opportunities in the areas of education, training and employment. Under these circumstances it is natural that the CWDs feel rejected or unwanted in the society.
5. **Denial of property rights:** As per the Indian laws, all kith and kin in the family are eligible to get their share of inherited property, but in reality, persons with disabilities are denied these rights. The siblings take responsibility of providing care and they would enjoy the property meant for the person with disability. Families perceive that CWD are incapable of managing their property, they are denied of their property rights and made dependent on the able-bodied siblings. Worst of all would be when family members ensure the chronic condition of the disability by denying treatment or other aids, so that the siblings enjoy the property.
6. **Decreased marital life prospects:** In India the elders arrange majority of the marriages. If a family has person with disability, eligible boys and girls finding a prospective spouse is almost next to impossible because of the stigma and the disability being seen as a family illness. There are occasions where they hide the information and after marriage the problems erupts. It is also common a close relative getting pressurized to marry such a person.
7. **Implications on sexuality of a person with disability:** Sexual identity is a critical component of overall personality development and self-esteem, which matures during adolescence. CWDs are at a particular disadvantage in this regard as well. There is a strong attitude of overprotection toward the disabled child. Parents infantilize disabled children and imply that sex is only for the able-bodied and of no relevance to the disabled. These parental attitudes are transmitted to the child in subtle ways making him/her feel that she/he is inferior and unworthy of love. Parents of CWDs encourage dependence and share the general societal perception of disabled persons as essentially child-like, innocent and asexual.

8. **Women with disabilities:** Due to differential gender-based role expectations, education is not considered a priority for disabled girls. Dropout rates for disabled girls are higher than for disabled boys. There is an over-representation of disabled boys in education, both in special and mainstream schools. Parents become more protective and restrictive, especially after a disabled girl reaches puberty. Travelling to school is a huge problem, since, besides transport difficulties, the danger of sexual abuse and violation looms large. There is also the reasoning that there's little point investing in a disabled girl's education as they will anyhow never be able to earn. Unfortunately, a girl child with disability is seen as a lifelong burden on the natal family because marriage is not a realistic option. Hence, it is concluded to be economically unsound to invest in her education or vocational training.

How to address the challenges?

There are several unmet challenges, which need to be addressed among disability sector in India.

1. Need for dignified life for children and people with disabilities.
2. Need to remove attitudinal barriers among communities and provide rehabilitation of CWDs.
3. Need to improve infrastructures in mainstream schools to make them disabled friendly and train teachers for optimal support.
4. Need to converge between various departments providing services for CWDs.
5. Need for national harmonization of disability welfare program.
6. Need to give executive powers and necessary resources to the commissioner of disabilities for effective implementation and safeguarding rights of PWD.
7. Need for promoting and monitoring mechanisms for service outreach below district level.
8. Need to improve effective collaborations between Government and NGO to avoid duplications.
9. Need to adopt to a down to top approach in policy design.
10. Need to improve community participation programs.



SOCIAL AUDIT

- Social audit is a process of reviewing official records and determining whether state reported expenditures reflect the actual money spent on the ground.
- According to **Food and Agriculture Organisation (FAO)**, a social audit is a way of measuring, understanding, reporting and ultimately improving an organization's social and ethical performance. A social audit helps to narrow gaps between vision/goal and reality, between efficiency and effectiveness.
- So far, social audits of government programmes have been done at the initiative of civil society organisations. But to give it a formal shape, through legislation, the state of Meghalaya became the first state in 2017 to pass social audit law.
- The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) was the **first law to mandate social audit as a statutory requirement**. The Office of the CAG developed social audit rules for the MGNREGA in 2011.

▪ Objectives of Social Audit

- Accurate identification of requirements;
- Prioritization of developmental activities as per requirements;
- Proper utilization of funds;
- Conformity of the developmental activity with the stated goals;
- Quality of service.

▪ Benefits of Social Audit

- Involvement of people in developmental activities ensures that money is spent where it actually needed;

- Reduction of wastages;
- Reduction in corruption;
- Awareness among people;
- Promotes integrity and a sense of community among people. Improves the standard of governance.

▪ **Way Forward**

- The breakdown of institutions has underlined the fact that democracy — and especially public funds — need eternal public vigilance. Democratic governance needs the citizen to be legally empowered to ask questions, file complaints, and be a part of the corrective process.
 - Social audits, as they have begun to evolve in India, can potentially become a powerful democratic method by which transparency can be combined with an institutionalised form of accountability to the people.
 - An independent facilitation structure needs to be set up, fleshed out, legally empowered and mandated to ensure that social audits are conducted. The relationship between the powerful and the powerless has to shift from patronage to rights, and from inequality to equality, making the right to question sacrosanct. Specific methods of sharing information, recording comments and acting on findings have been worked out. They now need to be acted upon.
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SECURITY

(Internal and External)



FATF

- The Financial Action Task Force (FATF) is the global money laundering and terrorist financing watchdog.
 - The inter-governmental body sets international standards that aim to prevent these illegal activities and the harm they cause to society.
 - As a policy-making body, the FATF works to generate the necessary political will to bring about national legislative and regulatory reforms in these areas.
 - With more than 200 countries and jurisdictions committed to implementing them. The FATF has developed the **FATF Recommendations, or FATF Standards**, which ensure a coordinated global response to prevent organised **crime, corruption and terrorism**.
 - They help authorities go after the money of criminals dealing in illegal drugs, human trafficking and other crimes.
 - The FATF **also works to stop funding for weapons of mass destruction**.
 - The FATF reviews **money laundering and terrorist financing techniques** and continuously strengthens its standards to address new risks, such as the regulation of virtual assets, which have spread as cryptocurrencies gain popularity.
 - The FATF monitors countries to ensure they implement the FATF Standards fully and effectively, and holds countries to account that do not comply.
 - FATF **does not address** at all issues related to low tax jurisdiction or tax competition.
 - The FATF mandate **focuses only on the fight against laundering** of proceeds of crimes and the financing of terrorism.
- **FATF '40+9'**
 - FATF issues a report containing a set of Forty Recommendations, which are intended to provide a comprehensive plan of action needed to fight against money laundering.
 - In 2001, the development of standards in the fight against terrorist financing was added to the mission of the FATF thereby further adding 9 Special Recommendations.
 - FATF has formed 40 recommendations against money laundering and 9 special recommendations against terrorist financing, which forms the commonly known '**40+9' FATF Standards**.
 - **Mutual Evaluations**
 - The FATF conducts peer reviews of each member to assess levels of implementation of the FATF Recommendations.
 - It provides an in-depth description and analysis of each country's system for preventing criminal abuse of the financial system.
 - **FATF Listings**
 - FATF issues a list of '**Non-Cooperative Countries or Territories' (NCCTs)**, commonly called the **FATF Blacklist**.
 - These countries or territories are considered to be uncooperative in international efforts against money laundering and terrorism financing.
 - The **grey list** is a list of countries or territories with strategic anti-money laundering/countering the financing of terrorism deficiencies for which they have developed an action plan with the FATF.



NERVE AGENT NOVICHOK

- It was developed by Russians during the cold war era.
- The **Organisation for the Prohibition of Chemical Weapons (OPCW)** added Novichok to its list of banned toxins, in one of the first major changes to the treaty since it was signed in the 1990s.
- Instances when nerve agents have been used in warfare include **the Iran-Iraq war**, when Iraq used them against Kurdish residents in 1988.
- In 1994, eight people died and 500 were affected when a **Sarin attack** took place at Matsumoto in Japan.
- Further, in 1995 a sarin attack took place in the Tokyo subway killing 12 persons and injuring 50 others.
- More recently, in April 2018, nerve agents used during an attack carried out in the **Syrian** city of Douma led to the death of nearly 50 people.

■ Chemical Weapons convention

- The Chemical Weapons Convention (CWC) is a multilateral treaty that bans chemical weapons and requires their destruction within a specified period of time. The treaty is of unlimited duration and is far more comprehensive than the 1925 Geneva Protocol, which outlaws the use but not the possession of chemical weapons.
- CWC negotiations started in 1980 in the UN Conference on Disarmament.
- The convention opened for signature on January 13, 1993, and entered into force on April 29, 1997.

■ Status

- The CWC is open to all nations and currently has 193 states-parties.
- **Israel** has signed but has **yet to ratify** the convention. Three states have neither signed nor ratified the convention (**Egypt, North Korea and South Sudan**).

■ Prohibitions: The Chemical Weapons Convention prohibits:

- Developing, producing, acquiring, stockpiling, or retaining chemical weapons.
- The direct or indirect transfer of chemical weapons.
- Chemical weapons use or military preparation for use.
- Assisting, encouraging, or inducing other states to engage in CWC-prohibited activity.
- The use of riot control agents “as a method of warfare.”

Organisation for the Prohibition of Chemical Weapons (OPCW): The Organisation for the Prohibition of Chemical Weapons (OPCW) is the implementing body for the Chemical Weapons Convention, which entered into force on 29 April 1997. The OPCW, with its 193 Member States, oversees the global endeavour to permanently and verifiably eliminate chemical weapons.



MARITIME STRATEGY

It appears abundantly clear now that India's excessive focus on the continental sphere since Independence has not yielded great returns in terms of secure borders, healthy relations with its neighbours or deterrence stability vis-à-vis adversaries. If so, it is time for India to change its grand strategic approach — by shifting its almost exclusive focus from the continental sphere to the maritime sphere.

India has already begun to think in this direction with the Ministry of External Affairs (MEA) establishing a new division to deal with the Indo-Pacific in April 2019.

- Reasons why a maritime grand strategy would work to India's advantage -

- Unlike in the continental sphere where India seems to be hemmed in by China-Pakistan collusion, the maritime sphere is wide open for India to undertake coalition building, rule setting, and other forms of strategic exploration.
- India is **located right at the centre of the Indo-Pacific geopolitical imagination**, in the midst of the oceanic space spanning “from the shores of Africa to that of the Americas”.
- Unlike in the continental sphere, there is a **growing great power interest in the maritime sphere**, especially with the arrival of the concept of ‘Indo-Pacific’.
- The Euro-American interest in India’s land borders with Pakistan and China is negligible, and more so, there is little any country can do to help India in its continental contestations.
- The situation in the maritime sphere is the exact opposite: great powers remain ever more interested in the maritime sphere and this interest has grown substantially since the coinage of Indo-Pacific. For instance, Germany recently released its Indo-Pacific guidelines following the example of France which brought out its Indo-Pacific strategy last year.
- China’s bullying behaviour in the South China Sea in particular and the region in general has generated a great deal of willingness among the Euro-American powers and the countries of the region, including Australia and Japan, to push back Chinese unilateralism. This provides India with a unique opportunity to enhance its influence and potentially checkmate the Chinese ambitions in the region.
- The maritime space is a lot more important to China than engaging in opportunistic land grab attempts in the Himalayas, thanks to the massive Chinese trade that happens via the Oceanic routes and the complex geopolitics around the maritime chokepoints which can potentially disrupt that trade.
- A revitalised Indian maritime grand strategy will certainly provide New Delhi a lot more space for manoeuvre in the region and message Beijing that its Himalayan adventure could become costly for it.

Way forward: Therefore, it is high time New Delhi shifted its almost exclusive focus from the continental space to the maritime space, stitching together a maritime grand strategy –

- The MEA’s Indo-Pacific Division is a good beginning.
- So is the decision in 2019 to elevate the Quad meetings among India, Japan, the United States and Australia to the ministerial level.
- India would do well to ideate on the current and future maritime challenges, consolidate its military and non-military tools, engage its strategic partners, and publish a comprehensive vision document on the Indo-Pacific; the current ‘Indo-Pacific Division Briefs’ document put out by the MEA does not make the cut.
- More so, New Delhi should consider appointing a special envoy for Indo-Pacific affairs.



BASIC EXCHANGE AND COOPERATION AGREEMENT (BECA)

*India and the United States signed the **Basic Exchange and Cooperation Agreement (BECA)**, the last of four so-called foundational agreements for sharing sensitive information, sales of advanced military hardware and geospatial cooperation.*

- With this India has signed all the four Foundational Defense agreements the Logistics Exchange Memorandum of Agreement (**LEMOA**), the Communications Compatibility and Security Agreement (**COMCASA**), the General Security of Military Information Agreement (**GSOMIA**) and the the Basic Exchange and Cooperation Agreement (**BECA**).
- An extension to the GSOMIA, the Industrial Security Annex (**ISA**), was signed at the last 2+2 dialogue
- **About the Basic Exchange and Cooperation Agreement (BECA) –**
 - The Basic Exchange and Cooperation Agreement (BECA) is essentially an agreement proposed between the National Geospatial-Intelligence Agency of the US department of defence and the defence ministry that

will allow India and the US to share military information which includes maps, nautical and aeronautical charts, commercial and other unclassified imagery, geodetic, geophysical, geomagnetic and gravity data.

- Most of the information that will be shared will be that of the unclassified category but there is a provision of sharing classified information as well with proper safeguards in place to ensure that the information is not shared with any third party.

▪ **What will India gain from the agreement?**

- The agreement will allow US armed forces to provide advanced financial navigational aids and geospatial intelligence which will improve the military's accuracy of automated hardware systems and weapons like cruise missiles, ballistic missiles and drones.
- BECA will also help India and US counter the growing Chinese influence in the Indo-Pacific region thereby strengthening the Quad.
- The agreement will also help India at a time of standoff with the Chinese army in Ladakh.



SUBMARINE OPTICAL FIBRE CABLE

Optical Fibre Cable (OFC) connecting the Andaman and Nicobar Islands with the mainland was launched. It will provide residents of the Union Territory high-speed Internet connection.

- Under-sea cable has been executed by BSNL in a record time of less than 24 months and this will give 4G mobile services a big boost on these islands due to OFC connectivity. This will boost Digital Services like Tele-education, Tele- Health, e-Governance Services and tourism on the islands.
- The Connectivity will boost the Opportunities in the Andaman & Nicobar Islands says Prime Minister. It will promote Ease of Doing Business and simplify maritime logistics.
- The Andaman and Nicobar Island is to be developed as hub of Port led Development and it will also be a major port hub for international maritime trade.
- OFC project will strengthen base for Digital India and Atmanirbhar Bharat.

▪ **Benefits and Importance of Optical Fibre Cable**

- The Submarine Cable will help A&N in getting cheaper & better connectivity and all the benefits of Digital India, especially in improving online education, tele-medicine, banking system, online trading and in boosting tourism.
- According to the Prime Minister, Indian Ocean has been the centre of India's trade and strategic prowess for thousands of years and that Andaman & Nicobar is an important centre for India's **Economic-Strategic Cooperation**. He said all the Islands of India would be playing an important role under India's new trade strategy for Indo-Pacific region.
- Andaman & Nicobar will be developed as hub of Port Led Development as it is at a Competitive Distance from many ports of the World and this will help to boost trade in 21st Century.
- Under the **Act-East policy**, the role of Andaman and Nicobar in India's strong relations with East Asian countries and other countries connected to the sea is very high and is going to increase.
- The **Island Development Agency** was formed 3 years ago to strengthen its role. IDA is chaired by Union Home Minister as Home Minister is its Chairman and CEO of NITI Aayog acts as its Convenor.
- Apart from providing for better internet & mobile connectivity, the effort is to further improve physical connectivity through road, air and water.
- The Prime Minister also referred to the work on two major bridges and the NH-4 in order to improve the road connectivity of North and Middle Andaman. He said the Port Blair Airport is being enhanced to handle a Capacity of 1200 passengers. Along with this the airports are ready for operations in Diglipur, Car Nicobar and Campbell - Bay. 4 Ships being built at Kochi Shipyard shall be delivered soon to improve the Water connectivity between the islands and the mainland.

▪ **Boosting International Maritime Trade**

- Government's focus is also on promoting Ease of Business in the sea and simplifying Maritime Logistics. Speedy construction of the deep draft inner harbour and the proposal to construct Trans-shipment Port in Great Nicobar at an estimated cost of about Rs 10 thousand crores. This would enable big ships to anchor and would increase India's share in maritime trade, along with new employment opportunities.
 - The Blue Economy like Fisheries, Aquaculture and Sea-Weed farming in the island will accelerate in commensurate with the modern infrastructure being developed in Andaman and Nicobar. The efforts of the Government will give Andaman and Nicobar, not only new facilities but also as a prominent place on the World Tourist Map.
-

HISTORY AND CULTURE

(Ancient; Medieval and Modern)



GURU NANAK

- Guru Nanak, was born in the village of **Talwandi (now called Nankana)** in **1469**.
- He died at **Kartarpur** in **1538**.
- He founded the Sikh faith, introducing the concept of one God.
- Like Kabir, Nanak also preached a **casteless, universal, anti-ritualistic, monotheistic and highly spiritual religion**.
- He started the institution of **Guru Ka Langar**.
- Langar in the Sikh religion refers to the common kitchen where food is served to everyone without any discrimination.
- He emphasized the **equality of women, rejected the path of renunciation and he rejected the authority of the Vedas**.
- His approach aimed at **bridging distinctions between the Hindus and the Muslims**.
- **Janam-Sakhis** are hagiographic narratives of his life.
- He was the contemporary of **Mughal emperor - Babur**.



GURU GOBIND SINGH

- Guru Gobind Singh was the **tenth** and last **Sikh Guru**.
- He was born in **1666** in **Patna, Bihar** and he was the son of the **ninth Sikh Guru, Guru Teg Bahadur**.
- His literary contributions include texts like **Dasam Granth** and **Sarlobh Granth**.
- Dasam Granth is considered to be the next most important text in Sikhism after Guru Granth Sahib.
- He is credited with the formation of the **Khalsa Panth** which was a warrior community.
- He started the tradition of 5K's which were five articles every Khalsa member must adorn.
- The 5K's include **Kesha, Kanga, Kara, Kirpan, Kachera**.
- Khalsa tradition paved way to the formation of the **Sikh empire** under **Maharaja Ranjit Singh** in **1799**.



DARA SHIKOH

- Dara Shikoh is **believed to be buried somewhere in the Humayun's Tomb complex in Delhi, one of around 140 graves of the Mughal clan**.
- The eldest son of Shah Jahan, Dara Shikoh was killed after losing the war of succession against his brother Aurangzeb.
- **He is described as a "liberal" who tried to find commonalities between Hindu and Islamic traditions. He translated into Persian the Bhagavad Gita as well as 52 Upanishads.**
- Dara Shukoh was the total antithesis of Aurangzeb, in that he was deeply syncretic, warm-hearted and generous — but at the same time, he was also an indifferent administrator and ineffectual in the field of battle.
- According to the Shahjahannama, after Aurangzeb defeated Dara Shikoh, he brought the latter to Delhi in chains. His head was cut off and sent to Agra Fort, while his torso was buried in the Humayun's Tomb complex.
- Italian traveller **Niccolao Manucci** gave a graphic description of the day in **Travels of Manucci**, as he was **there as a witness to the whole thing. That is the basis of the thesis.**
- **The Musalajati-Darshikohi of Nuruddin Muhammad, dedicated to Darashikoh, deals with Greek medicine and contains, at the end, almost the whole of Ayurvedic material medica.**



MAHARAJA RANJIT SINGH

- Ranjit Singh was born on **November 13, 1780** in **Gujranwala**, now in Pakistan.
- At that time, Punjab was ruled by powerful chieftains who had divided the territory into **Misls**.
- Ranjit Singh overthrew the warring Misls and established a unified Sikh empire after he conquered **Lahore in 1799**.
- Ranjit Singh's trans-regional empire spread over several states including the former Mughal provinces of **Lahore and Multan along with parts of Kabul and the entire Peshawar**.
- The boundaries of his state went up to **Ladakh, Khyber Pass** in the northwest, and up to **Panchnad** in the south where the five rivers of Punjab fell into the Indus.
- The **Fort of Jamrud** at the mouth of the Khyber Pass was built under his reign.
- The maharaja was known for his just and secular rule; both Hindus and Muslims were given powerful positions in his darbar.
- He was given the title **Lion of Punjab (Sher-e-Punjab)** as a result his successful measures to overthrow the Afghan invaders.
- He was the only sovereign leader left in India from the clutches of the British at the time of his death.
- Ranjit Singh employed a large number of European officers, especially French, to train his troops.
- He appointed a **French General Jean Franquis Allard** to modernise his army. Due to his close relations with the French a bronze statue of him was unveiled in the French town of St Tropez as a mark of respect.
- His **throne is displayed prominently at the Victoria and Albert Museum** in London.
- Ranjit Singh covered the **Harimandir Sahib at Amritsar with gold** thus turning it into the famous Golden Temple.
- He is also credited with funding **Hazoor Sahib gurudwara** at the final resting place of Guru Gobind Singh in **Nanded, Maharashtra**.



ISHWARCHANDRA VIDYASAGAR

- Ishwarchandra Bandopadhyay was born on **September 26, 1820**, in **Birsingha village of Midnapore district** in a poor Brahmin family.
- After his elementary education, Ishwarchandra moved to Calcutta, where he studied Sanskrit grammar, literature, Vedanta philosophy, logic, astronomy, and Hindu law.
- He received the **title of Vidyasagar** — Ocean of Learning — at age 21.
- Privately, he studied English literature and philosophy.
- When he was barely 30, Vidyasagar was appointed **principal of Calcutta's Sanskrit College**.
- **Michael Madhusudan Dutt**, the 19th century pioneer of Bengali drama, describes Ishwarchandra as having "the genius and wisdom of an ancient sage, the energy of an Englishman and the heart of a Bengali mother".
- Vidyasagar's Bengali primer, **Borno Porichoy**, still remains, more than 125 years after his death in 1891 i.e. the introduction to the alphabet for nearly all Bengali children.

Literary and Social Contributions

- Vidyasagar's most enduring contributions were as an educationist and reformer of traditional upper caste Hindu society.
- The **focus of his reform was women**.
- He spent his life's energies trying to ensure an **end to the practice of child marriage** and **to initiate widow marriage**.
- The humanist reformism of **Raja Rammohan Roy (1772-1833)**, **Akshay Kumar Dutt (1820-86)** and **Vidyasagar** was shot through with a powerful rationalism that rejected the decadence of contemporary Hindu society, and questioned the bases of the faith in which it claimed to have its roots.

- Roy founded the **Brahmo Sabha**. Vidyasagar and Dutt were agnostics who refused to discuss the supernatural.
- In a **paper written in 1850**, Vidyasagar launched a powerful attack on the **practice of marrying off girls aged 10** or even younger, pointing to social, ethical, and hygiene issues, and rejecting the validity of the Dharma Shastras that advocated it.
- In **1855**, he wrote his two famous tracts on the Marriage of Hindu Widows, grounding his argument in reason and logic, showing that there was no prohibition on widows remarrying in the entire body of 'Smriti' literature (the Sutras and the Sastras).
- Alongside the campaign for widow remarriage, Vidyasagar **campaigns against polygamy**.
- In **1857**, a petition for the prohibition of polygamy among Kulin Brahmins was presented to the government with 25,000 signatures.
- The revolt of the sepoys resulted in postponement of action on this petition, but in 1866, Vidyasagar inspired another petition, this time with 21,000 signatures.
- In the 1870s, Vidyasagar wrote two brilliant critiques of polygamy, arguing to the government that since polygamy was not sanctioned by the sacred texts, there could be no objection to suppressing it by legislation.
- Two thousand copies of Vidyasagar's first pamphlets on widow remarriage were sold out in a week, and a reprint of another 3,000 was sold out as well. These were unprecedented sales figures for that time.
- On October 14, 1855, Vidyasagar petitioned the Government of India asking that it "take into early consideration the propriety of passing a law (as annexed) to remove all obstacles to the marriage of Hindu widows and to declare the issue of all such marriages to be legitimate".
- Finally, on **July 16, 1856, The Hindu Widows' Remarriage Act, known as Act XV, was passed**.



SAINT THIRUVALLUVAR

- Thiruvalluvar is regarded as a **cultural and moral icon for Tamils** across caste and religious lines.
- The period when he lived is debated, as is his religious identity.
- Some place him in the **third or fourth century; others put him in the eighth or ninth**.
- Some call him a **Hindu**; some trace his past to **Jainism**; Dravidian groups count him as a **saint with no religious identifiers** except his Dravidian roots.
- In his 1873 book Tamil Wisdom, British scholar Edward Jewitt Robinson wrote about the saint, including the suggestion that "Valluvan, or priest of the Pariah tribe, found the deserted child [in a grove in Chennai], and reared him as his own."



SHREE NARAYAN GURU

- Narayan Guru's family belonged to the **Ezhava caste** and was considered 'avarna' according to the social mores of the time.
- He was a pioneer reformer who **rejected the caste system and stressed on the equality of man**.
- He also gave the universal message, "One caste, one religion, one God."
- **Aravipuram Movement** was launched by Shree Narayana Guru on **Shivaratri day of 1888**.
- On that day, Sri Narayana Guru defied the religious restrictions traditionally placed on the Ezhava community, and **consecrated an idol of Shiva at Aravipuram**.
- He also lent his support to the **Vaikom Satyagraha** which was aimed at temple entry in Travancore for the lower castes. Mahatma Gandhi met Guru during this time.
- Dr. Palpu, a devotee of Guru established the **Shree Narayana Dharma Paripalana Yogam (SNDP Yogam)** in **1903** to further Narayana Guru's message.
- Shree Narayana Guru breathed his last on 20 September 1928. This day is observed as **Shree Narayana Guru Samadhi in Kerala**.
- His birth anniversary is also celebrated as **Shree Narayana Jayanthi**.



BHAGAT SINGH

- Bhagat Singh was born in 1907 in Punjab.
- He studied at the Dayanand Anglo Vedic High School started by the Arya Samaj.
- In 1923, he joined the National college at Lahore.
- He also worked as a writer and editor in Amritsar for Punjabi- and Urdu-language newspapers espousing Marxist theories.
- He is credited with popularizing the catchphrase **"Inquilab zindabad"** ("Long live the revolution").
- 1926: Bhagat Singh founded the Indian socialist youth organisation **Naujawan Bharat Sabha**.
- 1924: **Hindustan Republican Association** was founded which was later renamed to **Hindustan Socialist Republican Association**.
- 1928: HSRA was joined by Bhagat Singh.

Literary contributions

- Bhagat Singh was barely 17 when he published his first article, in 1924, in **Matwala, a Hindi magazine from Calcutta**. The subject of his article was **'Universal Brotherhood'**,
- He was also conscious of the international revolutionary struggles and ideologies, which is evident in his **three-part article on anarchism (1928)**.
- In 1931, Bhagat Singh wrote a pamphlet **"Why am I an Atheist"** while in jail.
- From Bhagat Singh's letters and writings, it is evident that he was influenced by **Karl Marx, Mazzini, Garibaldi, Tolstoy, Rousseau, Voltaire and Gorky**.
- He strongly critiqued the practice of **untouchability and communalism** and advocated the idea of a **plural and inclusive India**.
- Bhagat Singh expressed his disenchantment with the politics of Lala Lajpat Rai, whom he and other youth otherwise venerated.
- He **critiqued Lalaji's** growing proximity to the **Hindu Mahasabha** and other communal forces during the 1920s.



BHIM RAO AMBEDKAR

Contributions in Agriculture Sector

- He first set his mind to the **emancipation of smallholder farmers**, who were trapped in cycles of debt, with access to inputs restricted to privileged castes.
- He was in **favour of pooling of land among small farmers with cooperative management of land**.
- His solution was for the state to attempt to control farm input prices.
- The **idea was central to the planned agricultural growth of the first 50 years of free India**.

Contributions in Economy

- His next goal was to **break open the obscure financial relationship between the Centre and States** (imperial versus provincial governments).
- He concluded that a system where **fiscal powers were shared between the two entities would be the most stable**, an idea which is enshrined in the Constitution.
- This finding is relevant even today, as the **Centre with a new tax regime tries to influence the polity of States**.
- His most enduring economic research is focused on the debates around colonial India's monetary policy, a subject on which he authored two books.
- In 1934, the **Hilton Young Commission** was set up to debate this topic. Every member of this Royal Commission on Indian Currency and Finance held a copy of **Ambedkar's book, The Problem of the Rupee**, as Ambedkar argued his case for fiscal stability.

- As a result, **the committee drafted the Reserve Bank of India Act of 1934** with the express purpose of protecting markets from currency fluctuations through state control.

Contribution to Women's rights

- More significantly, **the idea of women as a potent force for economic change owes its legal existence in India solely to Ambedkar.**
- He was instrumental in **drafting specific laws to protect the rights of women in mines and factories, as well as recognising maternity in the law.**
- **Maternity rights** in modern India owe their existence to Babasaheb.

Contribution to Labour Rights

- Babasaheb was also **instrumental in introducing major labour reforms**, making the case for state intervention in labour relations in his writings as "what is called liberty from the control of the state is another name for the dictatorship of the private employer".
- He was also the driving force behind **Employees' State Insurance and the collection of industrial and labour statistics to track the progress of labour.**

More Facts about Ambedkar

- Popularly known as Baba Saheb. He was the **Chairman of the Drafting Committee of the Constituent Assembly and is called the 'Father of the Indian Constitution'.**
- He earned doctoral degrees in economics from the Columbia University and the London School of Economics.
- He established the **Bahishkrit Hitakarini Sabha** to promote education and socio-economic improvements among the Dalits.
- He started magazines like **Mooknayak, Equality Janta and Bahishkrit Bharat.**
- In 1927, he launched active agitation against untouchability. He organised and agitated for the right of Dalits to enter temples and to draw water from public water resources. He condemned Hindu scriptures that he thought propagated caste discrimination.
- In the early 1930s he **advocated a separate electorate for the Dalits.** This demand was accepted by British Prime Minister Ramsay MacDonald in his Communal Award of 1932, which granted Dalits 18% of the total seats in the Central legislature and 71 seats in the Provincial legislatures to be elected exclusively by Dalits.
- However, Ambedkar's success was short-lived because of Mahatma Gandhi's fast unto death against a separate electorate for Dalits whereby Ambedkar gave up his demand in return for an increased number of seats reserved for Dalits but elected by the general Hindu population.
- Ambedkar founded the **Independent Labour Party (later transformed into the Scheduled Castes Federation) in 1936.**
- He also worked as **Minister of Labour in the Viceroy's Executive Council.**
- After independence, Ambedkar became the **first Law Minister in 1947** under the Congress-led government. Later he resigned due to differences with Jawaharlal Nehru on the Hindu Code Bill.
- He was **appointed to the Rajya Sabha in 1952** and remained a member till his death.
- A few months before he died, **he converted to Buddhism in a public ceremony in Nagpur** and with him lakhs of Dalits converted to Buddhism.
- He authored several books and essays. Some of them are: **The Annihilation of Caste; Pakistan or the Partition of India; The Buddha and his Dhamma; The Evolution of Provincial Finance in British India; Administration and Finance of the East India Company etc.**

MULTIPLE CHOICE QUESTIONS

(50 MCQs)

Q1. Consider the following statements:

1. Pink pages in IUCN Red List include the critically endangered species.
2. Green pages in IUCN Red List include protected and conserved areas.

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

Q2. Arrange the tiger density in descending order in the following Tiger Reserves:

- (a) Orang > Kaziranga > Jim Corbett > Bandipur
- (b) Kaziranga > Jim Corbett > Orang > Bandipur
- (c) Orang > Jim Corbett > Kaziranga > Bandipur
- (d) Jim Corbett > Orang > Kaziranga > Bandipur

Q3. Apennines mountains range is located in –

- (a) France
- (b) Spain
- (c) Germany
- (d) Italy

Q4. Which of the following countries participate in the Malabar naval Exercise?

1. India
2. Japan
3. Australia

Select the correct answer using the code given below:

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

Q5. Which of the following statements is/are incorrect?

1. Crude oil with less sulphur are called sweet, whereas crude oil with high sulphur content are called sour.
2. Olefins are the basis for Polymers and oligomers used in plastic, resins, fibres, elastomers, lubricants and Gels.

3. Benzene is a raw material to produce plastics and synthetic fibres, whereas xylene is used for dyes and synthetic detergents.

Codes:

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

Q6. Consider the following statements:

1. Binary stars are two stars orbiting a common centre of mass.
2. Brown Dwarfs are able to sustain fusion of their hydrogen to produce energy.
3. Polarization is a property of light that represents the direction that the light wave oscillates.

Which of the statements given above are correct?

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

Q7. According to the Fiscal Responsibility and Budget Management rules, rolling targets have been set for certain indicators. Which of the following are the components of the rolling targets?

- 1) Fiscal deficit as a percentage of the GDP
- 2) Tax revenue as a percentage of the GDP
- 3) Foreign debt as a percentage of the GDP
- 4) GDP growth rate

Select the correct answer using the code given below:

- (a) 1 and 2 only
- (b) 1, 2 and 3 only
- (c) 2 and 4 only
- (d) 1, 2, 3 and 4

Q8. An economy has reported an increase in GDP at factor cost at constant prices. In this case, which of the following is/are necessarily true about the economy?

1. The economy has produced more goods and services in the current period, compared to the previous period.
2. The general price level of the goods and services in the economy is showing an upward trend.

Select the correct answer using the code given below:

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

Q9. Which among the following accounts for the highest components in the External Debt of India?

- (a) Multilateral Debt
- (b) Bilateral Debt
- (c) External Commercial Borrowings
- (d) Trade Credit

Q10. Which among the following is/are considered to be part of India's Forex Reserves?

- 1. Foreign Currency Assets (FCA)
- 2. Gold
- 3. Special Drawing Rights (SDRs)

Select the correct answer using the code given below:

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

Q11. Consider the following statements about GDP Deflator:

- 1. GDP Deflator is a better measure of inflation in an economy than the CPI (Consumer Price Index) and the WPI (Wholesale Price Index).
- 2. GDP Deflator includes the prices of imported goods as well.
- 3. Weights of goods differ according to the production level of each good in the GDP Deflator.

Which of the statements given above are correct?

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

Q12. Consider the following statements about a black hole:

- 1. It is a region in the space where the pulling force of gravity is so strong that even light is not able to escape.
- 2. A black hole cannot be observed.
- 3. It can be formed by the death of a massive star.

Which of the statements given above is/are correct?

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

Q13. Scuba Rice that is often seen in news relates to which of the following?

- (a) Flood-resistant rice
- (b) Rice fortified with Vitamin A
- (c) Another name for seaweed
- (d) Pest-resistant rice

Q14. Consider the following statements about the Kartarpur Sahib Corridor:

- 1. It is the first visa-free corridor between India and Pakistan.
- 2. The Kartarpur Gurudwara lies on the banks of the Beas River in Pakistan.

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

Q15. Which of the following is called as "Master of Roster"?

- (a) Attorney General
- (b) Advocate General
- (c) Chief Justice of India
- (d) None of the above

Q16. Which of the following statements is/are correct about the Supreme Court of India?

- 1. The Supreme Court is empowered to issue writs for the enforcement of all rights guaranteed by the constitution of India.
- 2. Any suit brought before Supreme Court of India by a citizen against the Center or a State falls under the original Jurisdiction of the Court.

Select the correct answer using the code given below:

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

Q17. Which of the following statements is/are correct?

- 1. Quad is considered as an informal grouping among India, Japan, Australia, and the United States to support a "free, open and prosperous" South China Sea region.
- 2. The demand for the Quad is a causal reaction to China's emergence as a great power.

Select the correct answer using the code given below:

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

Q18. Which of the following statements is/are correct?

1. In international relations, multilateralism refers to an alliance of multiple countries pursuing a common goal.
2. Global community adopted the Multilateralism post WWII, in the form of UNO.

Select the correct answer using the code given below:

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

Q19. Which of the following statements is/are correct?

1. China Pakistan Economic corridor passes through Gilgit-Baltistan.
2. India considers entire Union Territories of Jammu and Kashmir and Ladakh, including the areas of Gilgit and Baltistan as an integral part of the country.

Select the correct answer using the code given below:

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

Q20. Which of the following statements is/are correct?

1. The Pollution Index PI of any industrial sector is a number from 0 to 100.
2. The increasing value of PI denotes the decreasing degree of pollution load.

Select the correct answer using the code given below:

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

Q21. Consider the following statements:

1. Landslide is rapid movement of rock, soil and vegetation down the slope under the influence of gravity.
2. Debris flow and creep are types of landslides.

Which of the above statements is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) None of the Above

Q22. Consider the following statements regarding Pokkali Rice:

1. It is known for its saltwater resistance.
2. It flourishes in Odisha
3. It has a GI Tag.

Which of the above statements is/are correct?

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

Q23. Consider the following statements:

1. There are six AQI categories, namely Good, Satisfactory, Moderately polluted, Poor, Very Poor, and Severe.
2. AQ sub-index and health breakpoints are evolved for eight pollutants (PM10, PM2.5, NO2, SO2, CO, O3, NH3, and Pb) for which short-term (upto 24-hours) National Ambient Air Quality Standards are prescribed.

Which of the above statements is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) None of the Above

Q24. Consider the following statements with reference to Space Treaties:

1. The Liability Convention of 1972 establishes the standards of liability for damage caused by space objects.
2. The Rescue Agreement of 1968 requires States to assist an astronaut in case of accident, distress, emergency or unintended landing.

Which of the above statements is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) None of the Above

Q25. Which of the following statements is/are correct about the Financial Action Task force (FATF)?

1. It works to stop funding for weapons of mass destruction
2. It addresses issues related to low tax jurisdiction or tax competition.

Select the correct answer using the code given below:

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

Q26. Hambantota port lies in which of the following countries?

- a) Sri Lanka
- b) Myanmar
- c) Thailand
- d) Maldives

Q27. Which of the following countries does not border Ethiopia?

- (a) Eritrea
- (b) Djibouti
- (c) South Sudan
- (d) Uganda

Q28. Tigray region recently in news lies in which of the following countries?

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

Q29. Which of the following is the nearest port to Chabahar?

- (a) Gwadar
- (b) Bandar Abbas
- (c) Muscat Port
- (d) Kandla

Q30. Consider the following statements:

- 1. RCEP is free trade agreement in the Asia-Pacific region between the ten ASEAN states and five of their FTA partners.
- 2. RCEP is the first multilateral free trade agreement to include China.

Which of the above statement/s is/are correct?

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

Q31. Consider the following statements:

- 1. Viability Gap Finance means a grant to support projects that are economically justified but not financially viable.
- 2. The VGF scheme was launched in 2004 to support projects that come under Public-Private Partnerships.

Which of the above statement/s is/are correct?

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

Q32. Consider the following statements:

- 1. Eco-Sensitive Areas (ESAs) are located within 10 kms around Protected Areas, National Parks and Wildlife Sanctuaries.
- 2. ESAs are notified by the MoEFCC under Wildlife Protection Act 1972.

Which of the above statement/s is/are correct?

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

Q33. Consider the following statements:

- 1. The Western Ghats is spread over five states of Maharashtra, Goa, Karnataka, Kerala and Tamil Nadu.
- 2. Gadgil report seeks to bring 37% of the Western Ghats under the ESA zones.

Which of the above statement/s is/are correct?

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

Q34. Consider the following statements:

- 1. Red Sandalwood is also known as Red Sanders.
- 2. Red Sandalwood is a native and endemic to India and can only be found in the southern parts of the Eastern Ghats.

Which of the above statement/s is/are correct?

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

Q35. Consider the following statements:

- 1. Equator passes through southern Maldives.
- 2. Maldives is not a member of Commonwealth.

Which of the above statement/s is/are correct?

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

Q36. Biological phenomenon where one plant inhibits the growth of another is called:

- (a) Predation
- (b) Commensalism
- (c) Parasitism
- (d) Allelopathy

Q37. Consider the following statements w.r.t. Green Credit Scheme:

- 1. It functions under the provisions of Forest Rights Act, 2006.

2. It addresses the concerns linked with compensatory afforestation.

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

Q38. Identify the correct chronological order:

- (a) Central Zoo Authority > Community Conserved Area > Project Elephant > Project Tiger
- (b) Project Tiger > Central Zoo Authority > Project Elephant > Community Conserved Area
- (c) Central Zoo Authority > Project Tiger > Project Elephant > Community Conserved Area
- (d) Central Zoo Authority > Community Conserved Area > Project Tiger > Project Elephant

Q39. Consider the following statements:

- 1. National Biodiversity Authority (NBA) is a statutory body.
- 2. It looks in issues of Convention of Biodiversity (CBD).

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

Q40. Consider the following statements about the Securities and Exchange Board of India:

- 1. It is a non-statutory body.
 - 2. It regulates the credit rating agencies in India.
- 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

Q41. Which of the following indicate/s situation of monetary policy transmission in the economy?

- 1. The banks benchmarking their lending rates based on MCLR (Marginal Cost of funds based Lending Rate).
- 2. External benchmarking of interest rates.

Select the correct answer using the code given below:

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

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

Q42. Which of the following statements are correct?

- 1. Foreign Portfolio Investment (FPI) involves holding financial assets from a country outside of the investor's own.
- 2. FPI holdings can include stocks; American depositary receipts (ADRs), bonds, mutual funds and exchange-traded funds.
- 3. Unlike Foreign Direct Investment (FDI), FPI consists of passive ownership.

Select the correct answer using the code given below:

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

Q43. Which one of the following are the two organelles of the cell other than the nucleus that also have DNA in them?

- a) Endoplasmic Reticulum and Lysosome
- b) Mitochondria and Centriole
- c) Mitochondria and Chloroplast
- d) Mitochondria and Golgi bodies

Q44. Consider the following statements about the gravitational waves:

- 1. Gravitational waves are one of the strongest forces of our galaxy this keeps all celestial bodies in position.
- 2. Gravitational waves was first detected in 2016 from the merger of neutron star.
- 3. LIGO are set up to observe the gravitational waves.

Choose the correct statements from the code given below:

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

Q45. Which of the following is false about quantum technology?

- (a) It explains the nature of energy and matter.
- (b) It is used for making computers much faster than super computers.
- (c) The technology can be used for communications, chemistry, cryptography etc.
- (d) Quantum field has been commercially exploited completely.

Q46. Which of the following sequences correctly represents the order of ports from east to west direction?

- (a) Bandar Abbas, Chabahar Port, Gwadar Port, Kandla Port
- (b) Kandla Port, Gwadar Port, Chabahar Port, Bandar Abbas
- (c) Bandar Abbas, Gwadar Port, Chabahar Port, Kandla Port
- (d) Kandla Port, Chabahar Port, Bandar Abbas, Gwadar Port

Q47. Consider the following statements:

1. India is a party to the 1951 Refugee Convention.
2. India is not a signatory to the New York Declaration for Refugees and Migrants.

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

Q48. Which of the following countries does not claim sovereignty over Spratly Islands?

- (a) Malaysia
- (b) Vietnam
- (c) Laos
- (d) Philippines

Q49. Which of the following countries are located in the Horn of Africa?

- a) Djibouti, Eritrea, and Somalia
- b) Tanzania, South Africa and Namibia
- c) Ivory Coast, Nigeria and Gabon
- d) Tunisia, Algeria and Libya

Q50. Which of the following sequences correctly represents the order of countries from left to right?

- (a) Cambodia–Vietnam–Myanmar–Thailand
- (b) Myanmar–Thailand–Cambodia–Vietnam
- (c) Myanmar–Thailand–Vietnam–Cambodia
- (d) Myanmar–Vietnam–Cambodia–Thailand



ANSWERS

1.	Ans. a)
2.	Ans. a)
3.	Ans. d)
4.	Ans. d)
5.	Ans. d)
6.	Ans. c)
7.	Ans. a)
8.	Ans. a)
9.	Ans. c)
10.	Ans. d)
11.	Ans. b)
12.	Ans. b)
13.	Ans. b)
14.	Ans. a)
15.	Ans. c)
16.	Ans. d)
17.	Ans. b)

18.	Ans. c)
19.	Ans. c)
20.	Ans. a)
21.	Ans. c)
22.	Ans. b)
23.	Ans. c)
24.	Ans. c)
25.	Ans. a)

26.	Ans. a)
27.	Ans. d)
28.	Ans. d)
29.	Ans. a)
30.	Ans. c)
31.	Ans. c)
32.	Ans. a)
33.	Ans. d)
34.	Ans. c)
35.	Ans. a)

36.	Ans. d)
37.	Ans. b)
38.	Ans. c)
39.	Ans. c)
40.	Ans. b)
41.	Ans. c)
42.	Ans. d)
43.	Ans. c)

44.	Ans. b)
45.	Ans. d)
46.	Ans. b)
47.	Ans. d)
48.	Ans. c)
49.	Ans. a)
50.	Ans. b)

SHIELD IAS

UPSC PRELIMS-2021

(TEST RELEASE SCHEDULE)

RAPID PRACTICE TEST (RPT)

January - Polity

10th January- Polity RPT 1
17th January- Polity RPT 2
24th January- Polity RPT 3
31st January- Polity RPT 4

February - Economy

7th February- Economy RPT 1
14th February- Economy RPT 2
21st February- Economy RPT 3
28th February- Economy RPT 4

March - Geography and Environment

7th March- G&E RPT 1
14th March- G&E RPT 2
21st March- G&E RPT 3
28th March- G&E RPT 4

April - History and Culture

4th April- History & Culture RPT 1
11th April- History & Culture RPT 2
18th April- History & Culture RPT 3
25th April- History & Culture RPT 4

FULL LENGTH TEST (FLT)

May - Current Affairs (FLT)

2nd May- Current Affairs FLT 1
9th May- Current Affairs FLT 2
16th May- Current Affairs FLT 3
23rd May- Current Affairs FLT 4

May & June- General Studies FLT

30th May- General Studies FLT 1
6th June- General Studies FLT 2
13th June- General Studies FLT 3
20th June- General Studies FLT 4