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# CURRENT AFFAIRS

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

### **1. Iran Nuclear Deal**

As Iran has refused to hold direct talks with the U.S., European officials will shuttle between the Iranian and American delegations, exchanging talking points and seeking common ground over the nuclear deal.

- After a gap of five months, Iran, Russia, China and the European countries resumed negotiations in Vienna to revive the 2015 nuclear agreement, known as the Joint Comprehensive Plan of Action (JCPOA).
- The 2015 JCPOA agreement sought to cut Iran off a possible path to a nuclear bomb in return for lifting of economic sanctions.

#### **JCPOA**

- The Iran nuclear agreement, formally known as the JCPOA is a landmark accord reached between Iran and several world powers, including the United States, in July 2015.
- Under its terms, Iran agreed to dismantle much of its nuclear program and open its facilities to more extensive international inspections in exchange for billions of dollars' worth of sanctions relief.

#### **Expected outcomes of the deal**

- **Curb on nuclear program:** Proponents of the deal said that it would help prevent a revival of Iran's nuclear weapons program.
- **Increasing regional engagement:** It would thereby reduce the prospects for conflict between Iran and its regional rivals, including Israel and Saudi Arabia.

#### **Background of the JCPOA**

- Iran had previously agreed to forgo the development of nuclear weapons as a signatory to the Nuclear Nonproliferation Treaty, which has been in force since 1970.
- However, after the overthrow of the Pahlavi dynasty in 1979, Iranian leaders secretly pursued this technology.

- In 2007, U.S. intelligence analysts concluded that Iran halted its work on nuclear weapons in 2003 but continued to acquire nuclear technology and expertise.
- Prior to the JCPOA, the P5+1 had been negotiating with Iran for years, offering its government various incentives to halt uranium enrichment.

## Issues with the deal

### (1) US withdrawal

- The deal has been in jeopardy since President Donald Trump withdrew the US from it in 2018.
- In retaliation for the US, Iran resumed some of its nuclear activities.

### (2) Iran's insistence over sanctions removal

- In 2021, President Joe Biden said the US will return to the deal if Iran comes back into compliance, though Iran's leaders have insisted that Washington lift sanctions first.
- Iran now has indicated that he will take a harder line than his predecessor in nuclear negotiations.

## Who are the participants?

- The JCPOA, which went into effect in January 2016, imposes restrictions on Iran's civilian nuclear enrichment program.
- At the heart of negotiations with Iran were the five permanent members of the UN Security Council (China, France, Russia, the United Kingdom, and the United States) and Germany – collectively known as the P5+1.
- The European Union also took part. Israel explicitly opposed the agreement, calling it too lenient.
- Some Middle Eastern powers, such as Saudi Arabia, said they should have been consulted or included in the talks because they would be most affected by a nuclear-armed Iran.

## What did Iran agree to?

- **Nuclear restrictions:** Iran agreed not to produce either the highly enriched uranium or the plutonium that could be used in a nuclear weapon.
- **Monitoring and verification:** Iran agreed to eventually implement a protocol that would allow inspectors from the International Atomic Energy Agency (IAEA), the United Nations' nuclear watchdog.

### What did the other signatories agree to?

- **Sanctions relief:** The EU, United Nations, and United States all committed to lifting their nuclear-related sanctions on Iran. However, many other U.S. sanctions on Iran, some dating back to the 1979 hostage crisis, remained in effect.
- **Weapons embargo:** The parties agreed to lift an existing UN ban on Iran's transfer of conventional weapons and ballistic missiles after five years if the IAEA certifies that Iran is only engaged in civilian nuclear activity.

### How has the deal affected Iran's economy?

- Prior to the JCPOA, Iran's economy suffered years of recession, currency depreciation, and inflation, largely because of sanctions on its energy sector.
- With the sanctions lifted, inflation slowed, exchange rates stabilized, and exports – especially of oil, agricultural goods, and luxury items – skyrocketed as Iran regained trading partners, particularly in the EU.
- After the JCPOA took effect, Iran began exporting more than 2.1 million barrels per day (approaching pre-2012 levels, when the oil sanctions were originally put in place).

## 2. Over 6 lakh Indians renounced Citizenship

More than six lakh Indians renounced citizenship in the past five years, the Ministry of Home Affairs (MHA) informed the Lok Sabha.

### Citizenship in India

- Citizenship is in the Union List under the Constitution and thus under the exclusive jurisdiction of Parliament.
- The Constitution does not define the term 'citizen' but gives, in Articles 5 to 11, details of various categories of persons who are entitled to citizenship.
- Unlike other provisions of the Constitution, which came into being on January 26, 1950, these articles were enforced on November 26, 1949 itself, when the Constitution was adopted.

### Various provisions for Indian Citizenship

#### Article 5

- It provided for citizenship on the commencement of the Constitution.

- All those domiciled and born in India were given citizenship.
- Even those who were domiciled but not born in India, but either of whose parents was born in India, were considered citizens.
- Anyone who had been an ordinary resident for more than five years, too, was entitled to apply for citizenship.

### Article 6

- Since Independence was preceded by Partition and migration, Article 6 laid down that anyone who migrated to India before July 19, 1949, would automatically become an Indian citizen if either of his parents or grandparents was born in India.
- But those who entered India after this date needed to register themselves.

### Article 7

- Even those who had migrated to Pakistan after March 1, 1947 but subsequently returned on resettlement permits were included within the citizenship net.
- The law was more sympathetic to those who migrated from Pakistan and called them refugees than to those who, in a state of confusion, were stranded in Pakistan or went there but decided to return soon.

### Article 8

- Any Person of Indian Origin residing outside India who, or either of whose parents or grandparents, was born in India could register himself or herself as an Indian citizen with Indian Diplomatic Mission.

### **Various Amendments for Citizenships**

- According to Article 11, Parliament can go against the citizenship provisions of the Constitution.
- The Citizenship Act, 1955 was passed and has been amended four times – in 1986, 2003, 2005, and 2015.
- The Act empowers the government to determine the citizenship of persons in whose case it is in doubt.
- However, over the decades, Parliament has narrowed down the wider and universal principles of citizenship based on the fact of birth.
- Moreover, the Foreigners Act places a heavy burden on the individual to prove that he is not a foreigner.

### **(1) 1986 amendment**

- The constitutional provision and the original Citizenship Act gave citizenship on the principle of jus soli to everyone born in India.
- However, the 1986 amendment to Section 3 was less inclusive as it added the condition that those who were born in India on or after January 26, 1950 but before July 1, 1987, shall be an Indian citizen.
- Those born after July 1, 1987 and before December 4, 2003, in addition to one's own birth in India, can get citizenship only if either of his parents was an Indian citizen at the time of birth.

### **(2) 2003 amendment**

- The then government made the above condition more stringent, keeping in view infiltration from Bangladesh.
- Now the law requires that for those born on or after December 4, 2004, in addition to the fact of their own birth, both parents should be Indian citizens or one parent must be Indian citizen and other should not be an illegal migrant.
- With these restrictive amendments, India has almost moved towards the narrow principle of jus sanguinis or blood relationship.
- This lay down that an illegal migrant cannot claim citizenship by naturalization or registration even if he has been a resident of India for seven years.

### **(3) Citizenship (Amendment) Act, 2019**

- The amendment proposes to permit members of six communities – Hindus, Sikhs, Buddhists, Jains, Parsis and Christians from Pakistan, Bangladesh and Afghanistan – to continue to live in India if they entered India before December 14, 2014.
- It also reduces the requirement for citizenship from 11 years out of the preceding 14 years, to just 6 years.
- Two notifications also exempted these migrants from the Passport Act and Foreigner Act.
- A large number of organisations in Assam protested against this Bill as it may grant citizenship to Bangladeshi Hindu illegal migrants.

### **Losing of Indian Citizenship**

- The Citizenship Act, 1955 also lays down the three modes by which an Indian citizen may lose his/her citizenship.
- It may happen in any of the three ways: renunciation, termination and deprivation.

### **(1) Renunciation**

- An Indian Citizen of full age and capacity can renounce his Indian citizenship by making a declaration to that effect and having it registered.
- But if such a declaration is made during any war in which India is engaged, the registration shall be withheld until the Central Government otherwise directs.
- When a male person renounces his citizenship, every minor child of him ceases to be an Indian citizen.
- Such a child may, however, resume Indian citizenship if he makes a declaration to that effect within a year of his attaining full age, i.e. 18 years.

### **(2) Termination**

- If a citizen of India voluntarily acquires the citizenship of another country, he shall cease to be a citizen of India.
- During the war period, this provision does not apply to a citizen of India, who acquires the citizenship of another country in which India may be engaged voluntarily.

### **(3) Deprivation**

- Deprivation is a compulsory termination of citizenship of India.
- A citizen of India by naturalization, registration, domicile and residence, may be deprived of his citizenship by an order of the Central Government if it is satisfied that the Citizen has:
  1. Obtained the citizenship by means of fraud, false representation or concealment of any material fact
  2. Shown disloyalty to the Constitution of India
  3. Unlawfully traded or communicated with the enemy during a war
  4. Within five years after registration or neutralization, been imprisoned in any country for two years
  5. Ordinarily resident out of India for seven years continuously



### 3. National Health Accounts Estimates: 2017-18

Out-of-pocket expenditure (OOPE) as a share of total health expenditure and foreign aid for health has both come down as per the findings of the National Health Accounts (NHA) estimates for India for 2017-18.

#### National Health Accounts (NHA)

- The NHA estimates are prepared by using an accounting framework based on internationally accepted System of Health Accounts 2011, provided by the World Health Organization (WHO).
- It is released by Ministry of Health & Family Welfare.
- It describes health expenditures and flow of funds in the country's health system over a financial year of India.
- It answers important policy questions such as what are the sources of healthcare expenditures, who manages these, who provides health care services, and which services are utilized.
- It is a practice to describe the health expenditure estimates according to a global standard framework, System of Health Accounts 2011 (SHA 2011), to facilitate comparison of estimates across countries.

#### Objective of the NHA

- To describe the Current Health Expenditures (CHE).

The details of CHE are presented according to

- **Revenues of healthcare financing schemes:** - entities that provide resources to spend for health goods and services in the health system;
- **Healthcare financing schemes:** entities receiving and managing funds from financing sources to pay for or to purchase health goods and services;
- **Healthcare providers:** entities receiving finances to produce/ provide health goods and services;
- **Healthcare functions:** It describes the use of funds across various health care services.

#### About NHA (2017-2018)

- The 2017-18 NHA estimates shows government expenditure on health exhibiting an increasing trend and growing trust in public health care system.
- With the present estimate of NHA 2017-18, India has a continuous Time Series on NHA estimates for both government and private sources for five years since 2013-14.



- These estimates are not only comparable internationally, but also enable the policy makers to monitor progress towards universal health coverage as envisaged in the National Health Policy, 2017.

## Key Highlights

**Increase in GDP share:** The NHA estimates for 2017-18 clearly show that there has been an increase in the share of government health expenditure in the total GDP from 1.15% in 2013-14 to 1.35% in 2017-18.

**Increase in govt share in expenditures:** In 2017-18, the share of government expenditure was 40.8%, which is much higher than 28.6% in 2013-14.

**Per-Capita increase in expenditure:** In per capita terms, the government health expenditure has increased from Rs 1042 to Rs.1753 between 2013-14 to 2017-18.

**Focus on total healthcare:** The primary and secondary care accounts for more than 80% of the current Government health expenditure.

**Social security expenditure:** The share of social security expenditure on health, which includes the social health insurance program, Government financed health insurance schemes, and medical reimbursements made to Government employees, has increased.

**Decline in foreign aid:** The findings also depict that the foreign aid for health has come down to 0.5%, showcasing India's economic self-reliance.

**Decline in OOPE:** The government's efforts to improve public health care are evident with out-of-pocket expenditure (OOPE) as a share of total health expenditure coming down to 48.8% in 2017-18 from 64.2% in 2013-14.

## Way forward

- After 18 months of Covid-19, financial year 2017-18 appears to be from another era.
- However, learnings from that year's NHA help us to plan for health system strengthening in the post-Covid years.
- The special financing packages for Covid emergency response, announced by the central government in 2020 and 2021, represent an extraordinary situation.
- The resolve to increase public financing for health must remain strong even after Covid.

#### 4. Afghanistan, the rise of a Narco-terrorist State

This article discusses the rise of Narco Terrorism in Taliban-led Afghanistan and how it can pose potential threats for India.

##### Narco-Terrorism

- The link between narcotics and terrorism is known as narco-terrorism.
- The concept of narco-terrorism stems from the realisation that drugs trafficking and terrorism are strongly interconnected.
- Any narco-terrorist organisation employs both terrorism and the drug trade.
- The ultimate goal of narco-terrorism is to destabilise the country through terrorism or to undermine it through the illegal drug trade, either alone or in combination.

##### Narco-Terrorism in Afghanistan:

- **Potential Threat:**
  - According to a UNODC estimate, opium production in Afghanistan has surpassed 6,000 tonnes for the sixth year in a row.
  - As a result of the stated increase in worldwide opium prices, the exponential output of opiates has increased by 8%.
  - The Taliban controls 85 percent of the world's opium-growing land, making them the world's most powerful narcotics gang.
  - According to a report by the US Special Inspector General for Afghanistan Reconstruction (SIGAR), illegal drugs account for up to 60% of the Taliban's annual earnings.
  - India's fears of ungoverned regions and a lawless Afghanistan being a major source of domestic security danger are increasingly becoming a reality.
- **Issues with Taliban-led Afghanistan:**
  - As the Taliban is aiming to gain income from the illegal cash crop, cases of smuggling and arrests of huge consignments of narcotics in India have increased.
  - Afghanistan has dramatically increased its methamphetamine manufacturing.
  - To transfer opiates, the Taliban employs a variety of smuggling methods.
  - It transports its products to Western Europe via the Caucasus and the Balkans, and then to North America.
  - Pakistani security personnel facilitate the southeastern route by collaborating with the Taliban and smuggling syndicates known as "tanzeems" in the region.

- **Global Concerns of Rising Narcotism in Afghanistan**
  - The Taliban appear to be taking advantage of the international community's vacuum and disinterest.
  - Between 2001 and 2020, the worldwide inability to establish an acceptable counter-narcotic policy to rein in the narco-trade beginning in Afghanistan might be partly to blame.
  - The emergence of a narco-terrorist state will have grave implications for the United States, Europe, and the region.
  - In this sense, the UNODC was only able to accomplish a slight reduction in the area under poppy cultivation and opium production.
  - For a number of reasons, efforts to promote alternative livelihood programmes and encourage farmers to plant other income crops have mostly failed. The central government in Kabul has minimal authority, and the international community has urged a punishing strategy.
  - Production increased as the US and the international community worked to get out of the Afghan quagmire, and it is expected to continue to rise in the coming years.
  - There is widespread agreement that drugs can ruin society, and that money generated from the narco-trade may be used to fund organised crime and terrorism.

### India and Narco-Terrorism

- **Potential Threat:**
  1. **Porous Borders:** India has a 15,106-kilometre porous border and a 7,516-kilometre coastline. China, Pakistan, Bhutan, Myanmar, Afghanistan, Nepal, and Bangladesh are all on the same side of those lengthy boundaries.
  2. **State-sponsored Terrorism:** Narco-terrorism is a key component of Pakistan's state-sponsored cross-border terrorism, which is used to fund and conduct asymmetric warfare against its neighbours.
  3. **Inefficient Policymaking:** Terrorist and militant actions are a problem in India, which are supported by the neighbouring countries. It's no surprise that few Indians see the importation of ganja, opium, hashish, and other drugs as a concern because secessionism, terrorism, and insurgency have occupied the thoughts of policymakers and the general people.
  4. **India's Position between Triangle and Crescent:** India is inconveniently placed between the Golden Crescent and the Golden Triangle, two of the world's most active hotbeds of illegal drug trafficking. The Golden Triangle is defined as the area where Thailand, Laos, and Myanmar intersect. Until the early twenty-first century, when Afghanistan overtook the Golden Triangle as the world's leading producer, the Golden Triangle produced the majority of the world's heroin.

5. **Terror Funding:** The lion's share of the source of terror funding in Kashmir emanates from across the border in Pakistan through its notorious agency ISI. The ISI generates its finances through narco-financing which comes from the control of narcotics trade in the AfPak region.
  6. **Pakistan as a Major Culprit:** Pakistan has the highest per capita heroin addiction rate in the world. The ISI pumps drugs in Jammu and Kashmir with twofold intentions. Drug-peddling funds terrorist activities; on the other, there is a strong correlation between receptive attitudes towards Jihadism and drug use.
  7. **Northeast Region:** Drugs, sourced from Myanmar and Bangladesh, has a direct bearing on the funding of terror and extremist activities in the northeast. A series of intermittent seizures in India of 'yaba' tablets that were meant for Bangladesh, indicates the existence of multiple exit points along the border in Tripura, Assam, and Meghalaya. The proceeds of this drug-trade find its way to insurgent-outfits.
- **Concerns for India From Taliban:**
    1. India, which lies between the world's two main opium-producing regions, the "Golden Crescent" and the "Golden Triangle," has seen an increase in seizures of Afghan-origin heroin.
    2. Afghan opiates have been entering India through convoluted sea and air routes for decades, involving Pakistan, Sri Lanka, African nations such as Mozambique and South Africa, and Qatar.
    3. The Taliban's control of Kabul may have sparked a flood of free-for-all narcotics smuggling that, if not halted, might destabilise India's security.
    4. If anti-India organisations like the Lashkar-e-Taiba and the Jaish-e-Mohammed, who are currently active in Afghanistan again, are able to get hold of the money from such narco-trafficking, India's efforts to control terror financing at home would yield only limited benefits.

### Possible Solutions

- A legal, accountable, powerful, and inclusive administration in Kabul is the cure to this phenomena.
- India has to restructure its criminal justice system, with forensic science playing a key role in combating narco-terrorism.
- The Afghan state's economic collapse and the escalating humanitarian disaster must be avoided.
- Reaching out to Afghans and raising their voices in support of a government that is genuine and acceptable to them would be a good start.
- India should seek out new partnerships in Central, West, and South Asia in order to form a willing coalition.

- India should take the initiative and reach out to Afghans from all walks of life, including women, civil society organisations, political leaders, and business organisations, who are seeking aid in establishing a credible, representative, and inclusive government in their nation.
- A collapsed state in the neighbourhood, paired with narco-terrorism, cannot be overlooked, and will have grave implications for India's security in the future.

### **Conclusion:**

There is a tangible and perceptible threat to India's domestic security with the emergence of the Taliban in Afghanistan and their grip over the narco-trade. With greater terror-funding, these trends will encourage the emergence of terrorism and separatist actions. India must be extremely watchful in order to prevent these two dangers, since they provide a clear and present risk.

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

### **5. Ericsson Mobility Report on 5G Subscriptions**

India 5G subscriptions are set to reach 500 mn by 2027, said Ericsson in its report.

#### **Ericsson Mobility Report**

- The report has added that the total number of smartphone subscriptions is expected to be 810 million at the end of 2021.
- It is projected to grow at a compounded annual growth rate of 7%, exceeding 1.2 billion by 2027.

#### **5G penetration in India**

- 5G telecom services are likely to account for 39% of mobile subscriptions or about 500 million subscriptions in India at the end of 2027.
- 4G is expected to remain the dominant technology in India in 2027.
- 4G subscriptions are expected to reduce from 68% of mobile subscriptions in 2021 to 55% in 2027 as subscribers migrate to 5G.
- However, 4G subscriptions are forecast to drop from 790 million in 2021 to 710 million in 2027, showing an annual average decline of 2%.

## 6. Government-owned Contractor-operated (GOCO) Model

The Army's ambitious plan for modernization of the Army Base Workshops (ABWs) and implementation of the 'Government-owned, contractor-operated (GOCO)' model is delayed, the Comptroller and Auditor General (CAG) said in its report.

### GOCO Model

- The GOCO model was one of the recommendations of the **Lt. Gen. DB Shekatkar (Retd.)** committee to enhance combat capability and re-balancing defence expenditure.
- In GOCO model, the **assets owned by the government will be operated by the private industries.**
- Under the GOCO model, the **private companies need not make investments** on land, machinery and other support systems.

### What is the current system?

- **Maintenance, repair and overhaul (MRO):** The Army follows the traditional 'womb to tomb' life cycle support management for maintenance, repair and overhaul (MRO) of its costly equipment.
- **Corps of Electronics and Mechanical Engineers (EME):** It is responsible for the MRO system.

### Need for GOCO Model

- **High end technologies:** In the last three decades, there has been a quantum jump in military technology and the MRO of military equipment has become very complex.
- **Lack of infrastructure:** However, some repairs and overhauls have run into problems on account of lack of infrastructure, spares and expertise.
- **Poor performance of Corps:** The infrastructure, expertise and work culture has not kept pace with time, leading to below par and inefficient performance.

### Benefits offered by the GOCO Model

- **Time savings:** The main advantage of the model is that the targets are achieved in lesser time frame.
- **Competitiveness:** Also, it will boost competitiveness among the private entities paving way to newer technologies.



- **Efficiency:** The GOCO model will bring in corporate culture, leading to efficiency and accountability.
- **Expertise:** Private operators can easily go into partnership with Original Equipment Manufacturer (OEM), both for expertise and spares.
- **Manpower saving:** The government can save on manpower – 12,500 personnel workforce of the ABWs.
- **Technical training:** This model also opens avenues for absorbing trained retired personnel, which can be built into the contract.

### Major issues with GOCO

- **Costly affair:** The corporate world is driven by market forces, which means the GOCO model will be more costly. In most cases, private operators will want better infrastructure, which would have to be upgraded or replaced at government cost.
- **Corporate management:** Private operators may not have the expertise to deal with military equipment; they are also unlikely to absorb the existing manpower and will want a younger and better-trained workforce.

### 7. India's informal economy has not shrunk

According to a recent State Bank of India (SBI) research report, the informal economy in India has been shrinking since 2018.

#### What does the State Bank of India (SBI) Research report say?

- The gross value-added (GVA) method was used to formalise the process.
- Increased digital payments and the job path are two ways to increase consumption.
- According to the research, the informal sector would account for just 15-20% of GDP in 2021, down from 52.4 percent in 2018.

#### What is Informal Economy?

- Household enterprises that are not formed as distinct legal organisations and for which no comprehensive records are available are classified as informal enterprises by the International Labour Organization's 15th International Conference of Labour Statisticians (1993).
- Informal employees were classified as individuals who did not have access to social security during the 17th Conference (2003).
- Internationally comparable estimates of both forms of informality (given above) are available based on these criteria.



- India has a rate of 80% and 91%, respectively. The latter is greater since formal businesses use both formal and informal personnel.

### Why is this a Misleading Claim?

1. **Lack of Standard Definition:** The SBI study uses a number of different definitions of formality (digitisation, GST registration, cashless payments), none of which are widely utilised. These may be useful tools for fostering formality, but they cannot be equated with formality on their own or even in combination.
2. **Impact of Pandemic:** The SBI report conflates the decline in the informal sector's proportion of GDP as a result of COVID-19's economic impact with formalisation. The lockdowns, as well as the resulting economic slump, had a negative influence on the informal economy. The lockdowns had the greatest impact on industries with a higher level of informality.
3. **Fall in Gross Value Added (GVA):** The drop in informal activities might be to blame for the informal sector's declining percentage of GVA. At best, calling this formalisation is deceptive. We don't know if the decrease in GVA is temporary or permanent. It has certainly resulted in job losses, particularly in the non-farm sector.
4. **Role of Agriculture:** The proportion of agricultural workers in total employment increased dramatically between 2018-19 and 2019-20 (National Statistical Office's Periodic Labour Force Survey). Agriculture is virtually totally unorganised, both in terms of businesses and employees.
5. **Misconceptions regarding e-Shram portal:** The number of employees registered in the new e-Shram site, according to the SBI, is another factor for the reduction in informality. Over 9.9 crore unorganised labourers have enrolled since the portal's introduction. Registration, on the other hand, refers to the documenting of employees rather than their formalisation. The portal's goal is not to provide social security benefits.
6. **No Credible Database:** There is no reliable database on India's unorganised employees at the moment. In 2020, the government cried helplessness when asked for figures on how many migrant labourers were injured or killed during the lockdowns. These migratory labourers used to be, and still are, a component of the unorganised sector.
7. **Homogeneous Entity:** In the research, the formal sector was regarded as a single unit. In actuality, the formal sector is divided into several tiers.
8. **Informalisation of the formal sector:** Contractualization and outsourcing of labour have resulted in a large-scale informalisation of the official sector during the last three decades. The pandemic boosted the share of non-permanent, casual, and contract employees in the organised sector. As a result, a large amount of the formal sector's production is really generated by informal labour within the official sector.

## Way Forward

- The continuous demolition of employer-employee relationships in the labour market has blurred the line between formal and informal employment relationships.
- The formal sector's whole structure is built on the backs of informal employees.
- There are layers of mediators between employers and employees, resulting in a separation. This is a purposeful rather than natural separation.
- As a result, contrary to what the research claims, the formal sector's contribution has been exaggerated while the informal sector's participation has been undervalued.

## THE INDIAN EXPRESS

## GS 2 : Polity, Governance, International Relations

### 1. HC and SC Judges (Salaries and Conditions of Service) Amendment Bill, 2021

Government has introduced a bill that proposes to amend the High Court Judges (Salaries and Condition of Service) Act and the Supreme Court Judges (Salaries and Condition of Service) Act.

#### Key Takeaways

- According to the bill, in 2009 the two laws were amended to provide that every retired judge or after his death, the family, as the case may be, will be entitled to an additional quantum of pension or family pension.
- Accordingly, the additional quantum of pension to retired judges of the high courts and the Supreme Court is being sanctioned on completing the age of 80 years, 85 years, 90 years, 95 years and 100 years, as the case may be.
- The bill seeks to bring clarity from when Supreme Court and high court judges are entitled to an additional quantum of pension or family pension on attaining a certain age.
- The additional quantum of pension to a retired judge was earlier calculated **from the first day of the month in which he completes 80/90/95/100 years** the and not from the **first day of his entering the age**. However, Gauhati HC

and Madhya Pradesh HC reiterated that the calculation of pension must start from first day of his entering the age.

- To clarify the matter and to align the provisions of law to the High Court judgements, the government has brought in this amendment bill.

## 2. Delays in Army's offloading model

The Army's ambitious plan for modernisation of the Army Base Workshops (ABWs) and implementation of '**Government-owned, contractor-operated (GOCO)**' model is delayed.

- The original timeline for implementing the system lapsed in December 2019, the Comptroller and Auditor General (CAG) said in its report tabled in the Parliament.

### About

- In GOCO model, the assets owned by government will be operated by the private industries.
- Under the GOCO model, the private companies need not make investments on land, machinery and other support systems.
- The GOCO model was one of the recommendations of the Lt. Gen. DB **Shekatkar committee** to enhance combat capability and re-balance defence expenditure.
- Army Base Workshops (ABWs) carry out repairs and overhaul of weapons, vehicles and equipment of the Army. The GOCO model was meant to modernise the workshops as well free up Army personnel from maintenance work.
- The implementation of GOCO model is fraught with risks and operational challenges as **managing the existing manpower** becomes challenging.
  - 385 out of the 1,077 affected civilian manpower of closed stations/static workshops are lying idle and the same situation may arise in ABWs, if these issues are not addressed while implementing the GOCO Model.
- Audit recommends that the Ministry of Defence formulate a strategy to mitigate all risks, including deployment of existing manpower, relating to GOCO implementation," the CAG said.

### 3. National Edible Oil Mission-Oil Palm

During the year 2020-21, India imported 133.5 lakh tonnes of edible oil, out of which the share of palm oil was around 56 %.

**The National Mission on Edible Oils - Oil Palm (NMEO-OP)** has been launched with the aim to augment the availability of edible oil in the country by harnessing area expansion, increasing crude palm oil production with the aim to reduce the import burden.

- **Objective:** To ensure self-sufficiency in edible oil production.
- **Aim:** To reduce import dependence from 60% to 45% by 2024-25, by increasing domestic edible oil production from 10.5 million tonnes to 18 million tonnes which is a 70% growth target.
- Farmers will get all needed facilities, from quality seeds to technology.
- Along with promoting the cultivation of oil palm, this mission will also expand the cultivation of our other traditional oilseed crops.

#### What is the need for such schemes?

- India is the largest consumer of vegetable oil in the world.
- India's Palm oil imports are almost 60% of its total vegetable oil imports.
- Recently, India's dependence on expensive imports has driven retail oil prices to new highs.
- In India, 94.1% of its palm oil is used in food products, especially for cooking. Thus, palm oil is extremely important to India's edible oils economy.
- **Top consumers:** India, China, and the European Union (EU).

### 4. The Iran-US deadlock over nuclear capability

After a gap of five months, Iran, Russia, China and the European countries resumed negotiations in Vienna to revive the 2015 nuclear agreement, known as the Joint Comprehensive Plan of Action (JCPOA), that had sought to restrict Iran's nuclear programme.

- As Iran has refused to hold direct talks with the U.S., European officials will shuttle between the Iranian and American delegations, exchanging talking points and seeking common ground.

#### What were the terms of the nuclear agreement?

- The 2015 agreement sought to cut Iran off a possible path to a nuclear bomb in return for the **lifting of economic sanctions**.
- Iran maintains that its **nuclear programme is peaceful**, a claim disputed by many international powers.
- At the time of the agreement, Iran had **two nuclear enrichment plants** – Natanz and Fordow – that were enriching uranium at a higher purity than what's required for a civilian programme, and had almost 20,000 centrifuges.
- Typically, low-enriched uranium, with less than 5% concentration of the fissile isotopes U-235, is used in nuclear power plants. While uranium with 20% and more purity is used in research reactors, the fuel with **90% purity is used in bombs**. Centrifuges are used to enrich uranium.
- **Reduce Purity & Stockpile:** According to the 2015 deal, Iran agreed to cut its stockpile of enriched uranium by 98% to 300 kg and keep them at a low purity level of 3.67%.
- **Open to Inspection:** Restrictions were introduced on the number of centrifuges it could keep and Iran agreed to open all its facilities to the inspection of the International Atomic Energy Agency (IAEA).
- These measures meant that even if Iran reneged on the promises and decided to make a bomb, it would take at least one year (the breakout period) to manufacture enough highly enriched uranium and centrifuges to do so.
- In return for Iran signing the agreement, the US administration under Obama lifted sanctions on Iran.

### What triggered the current crisis?

- **US withdrawal from deal:** In May 2018, U.S. President Donald Trump, Barack Obama's successor, unilaterally pulled the U.S. out of the nuclear deal despite the UN certification that Iran was complying with all the terms of the agreement.
- **Criticism of Inadequate Measures:** Critics of the deal in USA as well as in Saudi Arabia and Israel argued that the agreement was inadequate to address Iran's growing influence in the region.
- **Scope for Rise of Iran:** Critics of agreement argued that the lifting of the sanctions would leave Iran economically more powerful and raise its geopolitical profile, which would pose fresh challenges to America's allies in West Asia.
- **US need for new Items in Negotiation:** The Trump administration also wanted to negotiate Iran's ballistic missile programme as part of a new agreement.
- **Breakdown of deal & return of Status quo:** After pulling out of the JCPOA, the U.S. reimposed sanctions on Iran and then invited Iran for talks. Iran, on the other side, not just refused to talk with the Trump administration, but also resumed its nuclear programme.



## Where do talks stand now?

- Joe Biden, during the campaign, had promised to revive the nuclear deal. After his election, he appointed a **special envoy for Iran**.
- Indirect talks with Iran through Europeans started immediately. But no agreement was reached after six rounds in Vienna.
- A **change of Government in Iran** made matters more complicated. Now, the Iranian delegation, appointed by the new Government of President Ebrahim Raisi, has come forward for talks, which has raised hopes for a breakthrough. But there still are several thorny issues.
  - **Iran has substantially stepped up its nuclear activities** since 2019. It has installed more than 1,000 more advanced centrifuges at its plants, which can enrich uranium more quickly.
  - Iran has also **started enriching uranium** to 20% purity or more, which is a technical step away from the weapons grade level.
  - In February, Iran scuttled the IAEA's oversight of its nuclear sights, but agreed to keep recording devices in place that would allow the agency to continue to monitor the plants.
  - In recent months, **Iran removed the IAEA camera from a factory** in Karaj, outside Tehran, that makes equipment for centrifuges.
  - According to some reports, the advances Iran made in its nuclear programme has **reduced the current breakout time** (to make nuclear bomb) to as little as a month, from a year when the deal was alive.

## What future prospects does the negotiations hold?

- The Biden administration has said that it was ready to take necessary steps to revive the JCPOA, including removing sanctions, but it **wants Iran to return to the agreement first** – which means
  - Iran should stop enriching uranium
  - Ship out the highly enriched fuel as well as the centrifuges
  - Open the nuclear sites for international inspection.
- Iran also says it's ready to return to the deal but it **wants the U.S. to remove all the sanctions first** and give assurances to Iran that a future American leader would not go back on the promises as Mr. Trump did.
- As a result, the talks have **reached a stalemate**.
- In Vienna, the challenge is to **find some common ground** so that at least the process of reviving the deal can begin. Time is running out for all parties with Iran moving fast with its nuclear programme.

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

### 5. Emission caused by Nuclear Energy

Supporters of the Nuclear Energy source say that it is a climate-friendly way to generate electricity. However, this is subjected to various considerations often not discussed.

#### Why focus on Nuclear Energy?

- The main factors for its choice were reliability and security of supply.
- The latest figures on global carbon dioxide emissions call into question the world's efforts to tackle the climate crisis.

#### Soaring CO2 emissions

- CO2 emissions are set to soar 4.9% in 2021, compared with the previous year, according to a study published earlier this month by the Global Carbon Project (GCP), a group of scientists that track emissions.
- In 2020, emissions dropped 5.4% due to the COVID-19 pandemic and associated lockdowns.
- The energy sector continues to be the largest emitter of greenhouse gases, with a share of 40% – and rising.

#### Is nuclear power a zero-emissions energy source?

**No. Nuclear energy is also responsible for greenhouse gas emissions.**

- **Uranium mining:** Uranium extraction, transport and processing produces emissions.
- **Construction of power plants:** The long and complex construction process of nuclear power plants also releases CO<sub>2</sub>, as does the demolition of decommissioned sites.
- **Nuclear waste and its transportation:** This also has to be transported and stored under strict conditions – here, too, emissions must be taken into account.
- **Water consumption:** Power plants depend on nearby water sources to cool their reactors, and with many rivers drying up, those sources of water are no longer guaranteed.



### How much CO<sub>2</sub> does nuclear power produce?

- Results vary significantly, depending on whether we only consider the process of electricity generation, or take into account the entire life cycle of a nuclear power plant.
- A report released in 2014 by the IPCC estimated a range of 3.7 to 110 grams of CO<sub>2</sub> equivalent per kilowatt-hour (kWh).
- It's long been assumed that nuclear plants generate an average of 66 grams of CO<sub>2</sub>/kWh.

### How climate-friendly is nuclear compared to other energies?

- If the entire life cycle, nuclear energy certainly comes out ahead of fossil fuels like coal or natural gas.
- But the picture is drastically different when compared with renewable energy.
- Nuclear power releases 3.5 times more CO<sub>2</sub> per kilowatt-hour than photovoltaic solar panel systems.
- Compared with onshore wind power, that figure jumps to 13 times more CO<sub>2</sub>.
- When up against electricity from hydropower installations, nuclear generates 29 times more carbon.

### Can we rely on nuclear energy to help stop global warming?

- Around the world, nuclear energy representatives, as well as some politicians, have called for the expansion of atomic power.
- Other countries have also supported plans to build new nuclear plants, arguing that the energy sector will be even more damaging for the climate without it.

### Feasibility of Nuclear Energy

- **High cost of construction:** Due to the high costs associated with nuclear energy, it also blocks important financial resources that could instead be used to develop renewable energy.
- **Renewables are better:** Those renewables would provide more energy that is both faster and cheaper than nuclear.
- **High water consumption:** During the world's increasingly hot summers, several nuclear power plants have already had to be temporarily shut down due to water scarcity.

## Conclusion

- Taking into account the current overall energy system, nuclear energy is by no means CO2 neutral.
- The contribution of nuclear energy is viewed too optimistically.
- In reality construction, times are too long and the costs too high to have a noticeable effect on climate change. It takes too long for nuclear energy to become available.

## 6. Soil Health Card Scheme

National Productivity Council (NPC) has carried out a study on 'Soil Testing Infrastructure for Faster Delivery of Soil Health Card in India' in 2017.

### What did the study find?

- In the study it was found that application of fertilizer and micronutrients based on Soil Health Card (SHC) recommendations resulted in 8-10% of savings.
- It has led to an overall increase in the yield of crops to the tune of 5-6% reported by adopting the SHC recommendations.

### About Soil Health Card Scheme

- Soil Health Card (SHC) scheme is promoted by the Department of Agriculture & Co-operation under the Ministry of Agriculture and Farmers' Welfare.
- An SHC is meant to give each farmer soil nutrient status of his/her holding and advice him/her on the dosage of fertilizers and also the needed soil amendments, that s/he should apply to maintain soil health in the long run.
- SHC is a printed report that a farmer will be handed over for each of his holdings.
- It will be made available once in a cycle of 2 years, which will indicate the status of soil health of a farmer's holding for that particular period.
- The SHC given in the next cycle of 2 years will be able to record the changes in the soil health for that subsequent period.

### Parameters of SHC:

- N, P, K (Macro-nutrients)
- Sulfur (S) (Secondary- nutrient)

- Zn, Fe, Cu, Mn, Bo (Micronutrients)
- pH, EC (Electrical conductivity) , OC (Organic content)

## 7. GDP growth of 8.4% in Q2

India's gross domestic product (GDP) grew by 8.4% in the July to September quarter, compared to a **7.4% contraction** a year ago, with the economy's gross value added (GVA) rising 8.5%, the National Statistical Office said on Tuesday.

- Factoring in the first quarter GDP growth of 20.1%, **the first half of this year has recorded 13.7% growth** and India is likely to record double digit growth for 2021-22 as a whole.
- It shows that the recovery process is continuing to play out.
- Economists, however, were not fully convinced about the extent and durability of this recovery and reacted with caution.
- Though the absolute GDP in the second quarter (Q2) was 0.3% higher than **pre-pandemic levels**, there were still many worrying areas.
- In particular, the insipid **private consumption spending** that still lagging below pre-COVID levels along with activity in employment-intensive sectors like construction and contact-intensive sectors like retail and hotels.
- The **base effect of negative growth last year** also helped nudge the GDP numbers up.
- **Investments, largely from the Government**, continued to remain the key growth drivers while private consumption is yet to show a decisive recovery.
- On the domestic demand side, only gross fixed capital formation emerged positive in Q2 over the 2019-20 level.
- Even if the pace of recovery is sustained in the next two quarters, India's GDP for the year is expected to be only marginally higher than that in 2019-20 (by around 2%),"
- Improvements in Demand and investments are expected to be limited and gradual given that even before the pandemic, the domestic economy was grappling with slowdown.

## 8. Hydrogen-enriched compressed natural gas (HCNG)

There is an increased push for adopting "**Hydrogen-enriched compressed natural gas (HCNG)**." This comes in the backdrop of India's National Hydrogen Energy Mission in the works, which may mandate fertilizer, steel and petrochemicals industries to shift to green hydrogen use.

## Background:

The Bureau of Indian Standards (BIS) has also developed specifications (IS 17314:2019) of Hydrogen enriched Compressed Natural Gas (H-CNG) for automotive purposes, as a fuel.

## What is HCNG?

The **blending of hydrogen with CNG** provides a blended gas termed as HCNG.

- It can be used in place of gasoline, diesel fuel and propane ( $C_3H_8$ ) / LPG and its combustion produces fewer undesirable gases.

## Advantages of HCNG:

- HCNG reduces emissions of CO up to 70%.
- Enables up to 5 % savings in fuel.
- First step towards future Hydrogen economy.
- Engines can be calibrated to release lower amounts of NO.
- Engines need minimum modification to run on HCNG.
- Ideal fuel for high load applications and heavy-duty vehicles.
- Better performance due to higher Octane rating of H<sub>2</sub>.

## Disadvantages of using HCNG:

- Determining the most optimized H<sub>2</sub>/ NG (Natural Gas) ratio.
- It requires new infrastructures for preparing HCNG.
- Many steps need to be taken for commercializing it at a large scale.
- Current cost of H<sub>2</sub> is more than the cost of Natural Gas. So, HCNG's cost is more than CNG.

**Prelims Practice Questions**

**1. With reference to Zero Defect Zero Effect Scheme (ZED), consider the following statements:**

1. In this scheme, zero effect refers to zero air pollution, liquid discharge and solid waste.
2. It is implemented by the Central Pollution Control Board (CPCB).

Which of the statements given above is/are correct?

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

Answer : A

Explanation

- The **Zero Defect Zero Effect Scheme (ZED)** was launched in 2016 by the **Ministry of MSME**, the scheme is an integrated and comprehensive certification system. **Hence, statement 2 is not correct.**
  - The scheme accounts for productivity, quality, pollution mitigation, energy efficiency, financial status, human resource and technological depth including design and IPR in both products and processes.
  - Its mission is to develop and implement the 'ZED' culture in India based on the principles of Zero Defect & Zero Effect.
- **Zero Defect:**
  - The Zero defect concept is focusing on the customer.
  - Zero non-conformance or non-compliance
  - Zero waste
- **Zero Effect:**
  - **Zero air pollution, liquid discharge, solid waste. Hence, statement 1 is correct.**
  - Zero wastage of natural resources

**2. In the context of which one of the following are the terms 'pyrolysis and plasma gasification' mentioned?**

- a. Extraction of rare earth elements
- b. Natural gas extraction technologies
- c. Hydrogen fuel-based automobiles
- d. Waste-to-energy technologies

**Answer: d**

**Explanation:**

- **Pyrolysis** is the chemical decomposition of organic compounds in the absence of oxygen.
- **Plasma gasification** is a high-temperature thermal process that uses plasma to transform organic materials into a syngas (synthesis gas) largely composed of hydrogen and carbon monoxide.
- Pyrolysis transforms organic materials into a solid residue including ash and carbon, as well as minor amounts of liquid and gases.
- While plasma gasification is used commercially as a waste-to-energy system, converting municipal solid trash, tyres, hazardous waste, and sewage sludge into synthesis gas (syngas), which contains hydrogen and carbon monoxide and this may be used to create electricity.
- **Hence Option D is correct.**

**3. Which of the following indicators are used for developing India's national Multidimensional Poverty Index (MPI)?**

1. Nutrition
2. School attendance
3. Drinking water
4. Bank account

Select the correct answer using the code given below:

- A 1 and 2 only  
B 2 and 3 only  
C 1 only  
D 1, 2, 3 and 4

Answer : D

Explanation

- India's national Multidimensional Poverty Index (MPI) captures multiple and simultaneous deprivations faced by households across the three macro dimensions of health, education and living standards. The National MPI dimensions, indicators and weights are given below:

**4. Which of the following is correct with regards to the Central Bank Digital Currency (CBDC), as per the RBI?**

- a. CBDC is the legal tender issued by a global authority in a digital form
- b. CBDC is the legal tender issued by a central bank in a digital form
- c. CBDC is RBI's attempt to launch its own cryptocurrency to rival the existing ones
- d. None of the above

**Answer: b**

**Explanation:**

- Recently, the Reserve Bank of India (RBI) suggested revisions to the Reserve Bank of India Act, 1934, allowing it to introduce a Central Bank Digital Currency (CBDC).
- The CBDC is a digital form of fiat currency that can be traded using blockchain-backed wallets and is governed by the central bank.
- It differs from decentralised virtual currencies and crypto assets, which are not issued by the government and do not have the status of 'legal tender.'
- CBDCs allow users to perform domestic and cross-border transactions without the involvement of a third party or a bank.
- **Hence Option B is correct.**

**5. Fiat Currency has been recently in the news. Which of the following statements most appropriately describes it.**

- A It does not have any intrinsic value
- B Forex reserves with IMF



C Commodity Money

D Quota reserved with IMF

Answer : A

Explanation

- Fiat money is a government-issued currency that is not backed by a commodity such as gold.
- Fiat money gives central banks greater control over the economy because they can control how much money is printed.
- Throughout history, fiat money was sometimes issued by local banks and other institutions.
- Fiat money does not have intrinsic value and does not have value. It has value only because the people who use it as a medium of exchange agree on its value.
- Fiat money is an alternative to commodity money, which is a currency that has intrinsic value because it contains a precious metal such as gold or silver which is embedded in the coin.
- **Hence, option A correct.**

**6. The drainage path of Krishna River doesn't include which of the following states?**

- a. Tamil Nadu
- b. Maharashtra
- c. Karnataka
- d. Telangana

Answer: a

Explanation:

- The Krishna is the second largest eastward draining interstate river basin in Peninsular India covering large areas in the States of **Maharashtra, Karnataka and Andhra Pradesh.**
- **Hence Option A is correct.**

## **Mains Practice Questions**

**1Q. Even though child mortality in India has reduced significantly, the numbers are still the highest in the world. Discuss the reason behind the persistence in high rate of child mortality in the country and highlight the steps taken by the government in this regard. (250 words)**

### **Approach:**

- Explain child mortality with latest child mortality figures and improvement in them.
- Give reasons for persistence of high rate of child mortality.
- Mandate- constitutional obligation, SDGs
- Discuss steps taken by government
- Conclude with how better monitoring and implementation will help improve the situation

**2Q. Discuss how the process of fragmentation of the national party system and emergence of minority or coalition governments in 1960s impacted Indian politics and democracy. (150 words)**

### **Approach**

- Briefly introduce the political situation at centre in 1960's.
- Elaborate on the impacts of political development in 1960's.
- Conclude with a brief comparison of 1960's with present times in context of multiple parties at national and state level.