# **GENERAL STUDIES-1**

### **SOCIAL ISSUES AND INDIAN SOCIETY**

#### **INDIA'S INFANT MORTALITY RATE**

Data from: Sample Registration Survey (SRS)

**Performance:** Infant mortality rate (IMR) declined from 37 per 1000 live births in 2015 to 34 per 1000 live births in 2016.

Infant mortality rate (IMR) is the number of deaths per 1,000 live births of children under one year of age.

*Target:* 28 per 1000 live births by 2019.

#### <u>Details</u>

IMR in rural India is 38 per 1000 live births as compared to 23 in the urban areas.

• The government's family planning programme seems to be going in the right direction, with the data showing a major drop in number of estimated births in a year.

### **Significance**

The results signify that the strategic approach of the government has started yielding dividends and the efforts of focusing on low performing states is paying off. The countrywide efforts to increase the health service coverage through various initiatives, including strengthening of service delivery and drugs and diagnostics have worked well.

# **GENERAL STUDIES-2**

### **POLITY**

### **5 NEW GOVERNORS APPOINTED**

President Ram Nath Kovind has appointed new Governors to Tamil Nadu, Arunachal Pradesh, Bihar, Assam and Meghalaya.

### **Appointment and tenure of governors**

The governors and lieutenant-governors are appointed by the president for a term of 5 years.

Article 157 and Article 158 of the Constitution of India specify eligibility requirements for the post of governor.

- The term of governor's office is normally 5 years but it can be terminated earlier by: Dismissal by the president on the advice of the prime minister of the country, at whose pleasure the governor holds office or Resignation by the governor.
- There is no provision of impeachment, as it happens for the president.

## **GOVERNANCE ISSUES AND POLICIES**

#### REPORT ON LAW TO DEAL WITH INTERNET HATE SPEECH

*Committee head:* TK Viswanathan

#### **Backgrounder**

The high level committee was formed after the Supreme Court struck down section 66A of the Information Technology Act.

- ➤ Section 66A defines the punishment for sending "offensive" messages through a computer or any other communication device like a mobile phone or a tablet.
- A conviction can fetch a maximum of three years in jail and a fine.



Considering the growing menace of hate speech and abuse on the internet in the absence of the provision, the committee was reportedly set up to propose new laws and amendments in existing laws.

### **Important suggestions**

- ✓ Section 78 of the IT Act needs to be substituted and relevant sections of the Indian Penal Code need to be amended.
- ✓ Section 78 primarily deals with capacity building and needs to be relooked at with a view to sensitise law enforcement agency officers
- Each state should have a State Cyber Crime Coordinator which should be an officer not below the rank of Inspector General of Police
- ✓ Each district to have a District Cyber Crime Cell headed by an officer not below the rank of sub-inspector.

# COMMISSION TO EXAMINE SUB CATEGORIZATION OF OTHER BACKWARD CLASSES

#### Constitutional mandate

The President of India, in exercise of the powers conferred by article 340 of the Constitution, has appointed a Commission to examine the subcategorisation of Other Backward Classes.

Former Delhi High Court Chief Justice G. Rohini has been appointed by President of India as the head of the Commission.

#### Backgrounder:

The decision to appoint the commission follows the Cabinet decision to examine the extent of inequitable distribution of benefits of reservation among caste and communities included in the broad list of OBCs. At present, there is no sub-categorisation and 27% reservation is a monolithic entity.

#### Need



Sub categorization of the OBCs will ensure that the more backward among the OBC communities can also access the benefits of reservation for educational institutions and government jobs.

### Terms of reference for the Commission

- To examine the extent of inequitable distribution of benefits of reservation among the castes or communities included in the broad category of Other Backward Classes with reference to such classes included in the Central List.
- To work out the mechanism, criteria, norms and parameters in a scientific approach for sub-categorisation within such Other Backward Classes.
- To take up the exercise of identifying the respective castes or communities or sub-castes or synonyms in the Central List of Other Backward Classes and classifying them into their respective subcategories.

### **Significance**

This decision would certainly aid the Government's efforts to achieve greater social justice and inclusion for all, and specifically members of the Other Backward Classes.

#### In conclusion

The Commission is required to present their Report to the President within a period of twelve weeks of assumption of charge by the Chairperson of the Commission. On receipt of the Report of the Commission, the Central Government will consider ways and means for equitable distribution of the benefits of the reservation in Central Government jobs and admission in Central Government Institutions amongst all strata of the Other Backward Classes.

### A DIRE NEED FOR POLICE REFORMS



There has been a rise of public demand for an efficient, accountable and people-centric police that steadfastly upholds the Rule of Law in all situations. Since independence, the National Police Commission as well as multiple expert committees have submitted successive reports recommending extensive reforms in the Police. These recommendations have mostly remained unimplemented.

In September 2006, the Supreme Court of India, in Prakash Singh Vs Union of India passed a historic judgment directing the Central and State Governments towards operational reform and functional autonomy of the police. The Indian Police Foundation was inaugurated in 2015 to mount pressure on State governments to implement the directions of the Supreme Court on police reforms (Prakash Singh v. Union of India).

However, in effect the country has failed to use this historic opportunity for serious modernization and reform of the police.

### **Organisation and roles**

Under the Constitution, police is a subject governed by states. The centre is also allowed to maintain its own police forces to assist the states with ensuring law and order. Therefore, it maintains seven central police forces and some other police organisations for specialised tasks such as intelligence gathering, investigation, research and recordkeeping, and training.

In a large and populous country like India, police forces need to be wellequipped, in terms of personnel, weaponry, forensic, communication and transport support, to perform their role well.

Further, they need to have the operational freedom to carry out their responsibilities professionally, and satisfactory working conditions while being held accountable for poor performance or misuse of power.

### **Issues afflicting policing**

<u>Accountability</u>: Police forces have the authority to exercise force to enforce laws and maintain law and order in a state. However, this power may be misused in several ways.

<u>Understaffed</u>: Each police officer is responsible for a large segment of people, given India's low police strength per lakh population as compared



to international standards. While the United Nations recommended standard is 222 police per lakh persons, India's sanctioned strength is 181 police per lakh persons. After adjusting for vacancies, the actual police strength in India is at 137 police per lakh persons.

<u>Crime investigation and Underreporting of crime in India:</u> The conviction rate for crimes recorded under the Indian Penal Code was 47%. The Law Commission has observed that one of the reasons behind this is the poor quality of investigations.

<u>Poor Police infrastructure</u>: Modern policing requires a strong communication support, state-of-art or modern weapons, and a high degree of mobility. The CAG has noted shortcomings on several of these fronts.

<u>Police-Public relations</u>: Police requires the confidence, cooperation and support of the community to prevent crime and disorder. The Second Administrative Reforms Commission has noted that police-public relations is in an unsatisfactory state because people view the police as corrupt, inefficient, politically partisan and unresponsive.

### Prakash Singh vs Union of India

In 1996, a petition was filed before the Supreme which stated that the police abuse and misuse their powers. It alleged non-enforcement and discriminatory application of laws in favour of persons with power, and also raised instances of unauthorised detentions, torture, harassment, etc. against ordinary citizens. The petition asked the court to issue directions for implementation of recommendations of expert committees.

In 2006, the court issued various directions to the centre and states including:

- Constitute a State Security Commission in every state that will lay down policy for police functioning, evaluate police performance, and ensure that state governments do not exercise unwarranted influence on the police.
- Constitute a Police Establishment Board in every state that will decide postings, transfers and promotions for officers
- Constitute Police Complaints Authorities at the state and district levels to inquire into allegations of serious misconduct and abuse of power by police personnel.



- Provide a minimum tenure of at least two years for the DGP and other key police officers within the state forces
- Ensure that the DGP of state police is appointed from amongst three senior-most officers who have been empanelled for the promotion by the Union Public Service Commission on the basis of length of service, good record and experience.
- Separate the investigating police from the law and order police to ensure speedier investigation, better expertise and improved rapport with the people.
- Constitute a National Security Commission to shortlist the candidates for appointment as Chiefs of the central armed police forces.

### **Urgency in implementing Police Reforms**

As India makes rapid advances towards becoming an economic and political superpower, our police cannot continue to remain frozen in the frame of a past era.

There is an urgent need to strengthen our Criminal Justice System and our grassroots level policing institutions to prepare our police to deal with the present and emerging challenges and strengthen its investigative capabilities and emergency response infrastructure.

#### In conclusion

Political authorities still have a stronghold over the police and frequent changes of Police heads once a new government is elected has become a practice in many states. The result is that the police even today are not trusted by the people. They perceive the force as being partisan, politicised, and generally not very competent.

Much of the problem would not have been if the 2013 Lokpal legislation was put in place. The Lokpal would have the powers to oversee the CBI's work and would ease the burden of the court. Ultimately, it is only strong public opinion that can move the political class to implement the 2006 directives. But the police have to set examples to win public trust. Reform must start at home.

# WELFARE SCHEMES AND DEVELOPMENTAL GROUPS

#### **REACHING THE SWACHH BHARAT TARGET**



Swachh Bharat Abhiyan is a campaign which was launched on 2 October 2014, and aims to eradicate open defecation by 2019, the 150th anniversary of the birth of Mahatma Gandhi, by constructing 12 million toilets in rural India. Its predecessors were the "Nirmal Bharat Abhiyan" and before that the "Total Sanitation Campaign".

#### <u>A National Movement</u>

A sense of responsibility has been evoked among the people through the Clean India Movement. To realize the dream of Clean India once seen by Mahatma Gandhi, citizens are becoming active participants in cleanliness activities across the nation.

- ✓ People from all walks of life have joined this mass movement of cleanliness. From government officials to jawans, bollywood actors to the sportspersons, industrialists to spiritual leaders, all have lined up for the noble work.
- ✓ Organizing frequent cleanliness campaigns to spreading awareness about hygiene through plays and music is also being widely carried out across the nation.

### From Behavior Change to Social Change

SBM was envisaged to be community led people's movement with focus on behavioural change and not just construction of toilets. Other than ensuring hygiene, waste management and sanitation, the mission has been focusing on removing the bottlenecks that were hindering the progress in terms of capacity building, coordination, logistics, finance etc.

#### Progress so far

About 50 million toilets have been constructed in rural India, increasing the coverage from 39% to 69% now

- Five States have declared themselves Open Defecation Free (ODF) in rural areas: <u>Sikkim, Himachal Pradesh, Kerala, Uttarakhand and Haryana.</u>
- About 1,200 of our cities and towns, about one-third of the total, have already become ODF.
- More importantly, all ODF claims are scrutinised by third-party independent verification.



One of the criticism is that building toilets is easier than putting them to use. However, credible surveys show that 85% of toilets built under this mission are being used.

### **Transforming lives**

SBM has a much deeper significance in that it can transform the lives of Indian women, bringing in its scope issues of women's safety, their access to higher education and will even challenge the caste system.

All houses being built under the 'Housing for All' mission will have toilets and the title will vest in the name of women, either individually or jointly. This is about women's empowerment, freeing them from domestic subjugation besides liberating them from humiliating open defecation.

### **Problem areas and suggestions**

For 2017-18, the government allocation for the Swachh Bharat Mission-Gramin (SBM-G) was significantly larger as compared to the allocation for the Swachh Bharat Mission-Urban (SBM-U) project. This has to be seen in the light of the 2011 Census, according to which 31.16% of the total population lives in urban areas. Also, the growth of population in urban areas is 32% over a decade and rural is 12%.

- Importance should be given to the upkeep, maintenance and sustainability of these community infrastructures.
- The focus of the SBM-G should be on behavioural change; the guidelines also require a percentage of the funds be allocated for information, education and communication activities. But during 2016-17, paltry expenditure had been made on information, education and communication.
- Swachh Survekshan is a ranking exercise to assess rural and urban areas for their levels of cleanliness and active implementation of Swachhata mission initiatives in a timely and innovative manner. It should be implemented successfully every year.
- Empowerment holds the key to change, but that would depend on breaking caste barriers through education and economic uplift.
   Compensation sanctioned for the families of those who died in the course of the humiliating and hazardous work should be paid immediately;



 Modernising the sewer lines and septic tanks and investing money and energy on smart techniques of sanitation

#### In Conclusion

The on-going mass mobilisation campaign 'Swachhata Hi Seva' highlights sanitation as the real service to the nation. We owe a 'Swachh Bharat' to the Mahatma on the occasion of his 150th birth anniversary in 2019.

Proper integration of various components of the sanitation chain such as ensuring water supply, seepage management, sewerage networks, prevention of manual scavenging and solid waste management form the key for the Swachh Bharat Mission. Given the efforts underway to make this chain work, the way forward is towards a Clean India.

#### **CLEANEST ICONIC PLACE**

### Which place?

Sri Meenakshi Sundareswarar Temple in Madurai has been adjudged the cleanest iconic place in the country under Swachhta Hi Seva (cleanliness is service) programme.

### **Details**

Meenakshi Temple is a historic Hindu temple located on the southern bank of the Vaigai River in the temple city of Madurai, Tamil Nadu. It is dedicated to Meenakshi, a form of Parvati, and her consort, Sundareswar, a form of Shiva. The temple forms the heart and lifeline of the 2,500-year-old city of Madurai.

### Swachhta Hi Seva campaign:

It was a nation-wide, fortnight-long sanitation campaign launched to highlight the government's flagship cleanliness initiative Swachh Bharat Mission.



- The campaign was coordinated by the Ministry of Drinking Water and Sanitation, the convening Ministry for the Swachh Bharat Mission.
- The objective of the campaign is to mobilise people and reinforce the "Jan Aandolan" for sanitation to contribute to Mahatma Gandhi's dream of a Clean India.

### **INDIA AND ITS INTERNATIONAL RELATIONS**

#### **EXTRADITION TREATY BETWEEN INDIA AND LITHUANIA**

### Why in news?

The Union Cabinet has given its approval for the signing and ratification of the Extradition Treaty between India and Lithuania

#### **Benefits**

The Treaty would provide a legal framework for seeking extradition of terrorists, economic offenders and other criminals from and to Lithuania.

#### What is extradition?

Extradition is the surrender of a criminal to one country by another. It also helps in maintaining the territoriality of the penal code which says that a country should not apply its criminal law to a person who committed an offence outside its territories except when the crime is related the countries national interest. The process is regulated by treaties between the two countries.

### Internationally accepted conditions for extradition

- The crime should fulfill the criterion of dual criminality, i.e. it is a punishable offence in both the countries.
- ➤ Persons charged for political reasons are generally not extradited.

Some countries refuse to extradite if the kind of expected punishment is abolished or is not administered in their own territories.

#### India's extradition laws

In India the Extradition Act, 1962 regulates the surrender of a person to another country or the request for arrest of a person in a foreign land. The act specifies that any conduct of a person in India or in a foreign state that is mentioned in the list of extradition offence and is punishable with minimum one year of imprisonment qualifies for extradition request.

- > The process has to be initiated by the central government.
- ➤ In the case of countries with which India does not have such a treaty, the central government can by notified order treat any convention to which India and the foreign country is a party as the extradition treaty providing for extradition with respect to the offences specified in that convention.
- ➤ If the extradition request has come from two or more countries then the government has the rights to decide which of them is the fittest for the request.

### **Denying extradition**

- If the government finds the case trivial and if it thinks that the surrendering of the person is not being made in good faith or in the interests of justice or for political reasons, it can deny the request.
- If the surrender according to the requesting country's own law is barred by time.
- The government can put the extradition on hold if it feels that the
  person will be charged for a lesser offence, which is disclosed by
  the requesting authorities so that they can have the possession of
  the person.
- Apart from this, if the person is serving a jail term or he/she is accused of an offence in Indian soil, which is different from the offence for which the person is wanted abroad, then also the extradition process can be stopped.
- Similarly, if a fugitive criminal has committed an offence which is punishable with death in India while the laws of foreign state do not provide death for the same offence then criminal will get life imprisonment in India.



### **INTERNATIONAL AFFAIRS**

#### **CONSTITUTIONAL CRISIS IN SPAIN**

### Why in news?

Referendum on independence for Catalonia was recently held. The referendum showed 90% in favour of independence in the vote vehemently opposed by Spain's central Govt. and was declared illegal by it.

- It is the worst constitutional crisis in decades and deepened a centuries-old rift between Madrid and Barcelona.
- The ballot will have no legal status as it has been blocked by Spain's Constitutional Court. Madrid was criticized for being at odds with the 1978 constitution.

### **Importance of referendum**

Catalonia, an area in northeastern Spain accounts for 15% of Spain's population and 20% of its economic output. Barcelona is Catalonia's capital, which is a major tourist destination.

The latest referendum was the region's second referendum on independence in three years. The previous ballot, a non-binding vote in 2014.

### **Demand for independence:**

Catalonia has a distinct history, culture and language.

- As such, identity plays a large role in the debate surrounding independence. Under the military government of Francisco Franco, from 1939-1975, Catalan culture was suppressed.
- Symbols of Catalan identity such as the castells, or human towers, were prohibited and parents were forced to choose Spanish names for their children. The Catalan language was also restricted.
- The push for full autonomy appears to have gathered pace in recent years, most notably since Spain's 2008 debt crisis.



Pro-independence supporters claim Catalonia, which is one of Spain's wealthiest regions, offers more financial support to Spain than it receives from the central government in Madrid. Many view the region's strong economy as an indicator that it would be viable as a sovereign state.

### Catalonia's powers

In 1931, when Spain became a republic, Catalonia was given greater political autonomy within the confines of the state. However, by 1939 its powers had been revoked following the Nationalists' victory in the Spanish Civil War.

### **BANGLADESH SUPPORTS OBOR**

### Why in news?

Bangladesh has come out in support of China's 'One-Belt-One-Road' (OBOR) initiative, also known as the 'Belt and Road Initiative' (BRI).

### **Significance**

This is in absolute contradiction to India's stand on OBOR which it boycotted on grounds of violating India's territorial integrity as it runs through the disputed territory of Pakistan Occupied Kashmir (PoK) and because China has not been transparent leading to compromise on sovereignty.

#### Bangla's take

Bangladesh defends its move saying that small countries need to overcome few limitations by weaving themselves with the rest of the world with the help of projects such as OBOR.

#### **Backgrounder:**

China's \$4 trillion OBOR initiative will span 65 countries with 70% of the world's population. Bangladesh formally declared joining China's OBOR initiative during the visit of Chinese President Xi Jinping in 2016.

The One Belt One Road initiative is the centrepiece of China's foreign policy and domestic economic strategy. It aims to rejuvenate ancient trade routes–Silk Routes–which will open up markets within and beyond the



region. Through this initiative, China's plan is to construct roads, railways, ports, and other infrastructure across Asia and beyond to bind its economy more tightly to the rest of the world.

#### **GREATER ROLE SOUGHT AT UN PEACEKEEPING MISSIONS**

India has sought enhanced role for troops contributing countries in the decision-making process of UN peacekeeping missions. India has also asked UNSC to make amends to the existing mechanisms of excluding the troop and police-contributing countries (T/PCCs) from the process of framing the mandates is not sustainable.

### **Background:**

India is one of the largest contributors of troops and police to UN peacekeeping missions. However, it has no say in the process of formulation of the mandate.

#### **Problems and solutions**

The current approach is not sustainable. It is hence an inescapable requirement to incorporate the troop and police-contributing countries (T/PCCs) in the decision making and mandate formulation from the very onset.

 There is also a need to ensure more effective co-ordination amongst the T/PCCs, Secretariat and Security Council on important policy and doctrinal issues being formulated in the field of peacekeeping.

### **UN Peacekeeping**

United Nations Peacekeeping was created in 1948. Its first mission involved the establishment of the UN Truce Supervision Organization (UNTSO), which served to observe and maintain ceasefire during the 1948 Arab-Israeli War.

 UN Peacekeeping maintains three basic principles: Consent of the parties, impartiality and non-use of Force except in self-defence and defence of the mandate.



- The UN Peacekeepers are led by the Department of Peacekeeping Operations (DKPO).
- There are currently 17 UN peace operations deployed on four continents.
- UN Peacekeepers are from diverse backgrounds, from areas all around the world. They include police, military and civilian personnel. They are often referred to as Blue Berets or Blue Helmets because of their light blue berets or helmets.
- The UN Peacekeeping Force won the Nobel Peace Prize in 1988.

The United Nations Charter gives the United Nations Security Council the power and responsibility to take collective action to maintain international peace and security. For this reason, the international community usually looks to the Security Council to authorize peacekeeping operations.

# **GENERAL STUDIES-3**

### **INDIAN ECONOMY**

### **PROMOTING MUDRA**

The promotion campaigns will be launched by the department of financial services and state level banking committee (SLBC) of different states will actively participate and coordinate all these campaigns.



### Pradhan Mantri MUDRA Yojana (PMMY) scheme:

The PMMY Scheme was launched in 2015. The scheme's objective is to refinance collateral-free loans given by the lenders to small borrowers.

- The scheme, which has a corpus of Rs 20,000 crore, can lend between Rs 50,000 and Rs 10 lakh to small entrepreneurs.
- Banks and MFIs can draw refinance under the MUDRA Scheme after becoming member-lending institutions of MUDRA.

### **Significance**

- ➤ It increases the confidence of young, educated or skilled workers who would now be able to aspire to become first generation entrepreneurs.
- Existing small businesses, too, will be able to expand their activities.
- ➤ It has ensured credit flow to SMEs sector and has also identified NBFCs as a good fit to reach out to them.

### Three types of loans

- Shishu (up to Rs.50,000).
- Kishore (from Rs.50,001 to Rs.5 lakh).
- Tarun (from Rs.500,001 to Rs.10,00,000).

### NEW RULES FOR CAUSING QUICKER MONETARY POLICY TRANSMISSION

A RBI set- up panel has come out with a set of new rules to make lenders pass on rate cuts more quickly.

#### **Issue**

The RBI has cut its policy rate by a total of 200 basis points from January 2015 to August 2017 to support economic growth, but to its frustration banks have lowered their lending rates by only about 120 bps.



### **Panel suggestions**

- 1. Remove some of the leeway that banks have enjoyed, including allowing lenders to use only one of three benchmarks to set their lending rates: the policy repo rate, Treasury bill rates or certificate of deposit rates. Currently, banks can use multiple market rates and each one is free to set its own benchmark.
- 2. Adjust the key criteria used to set their lending rates once a quarter, rather than the current once a year.

### Why are banks not willing to reduce lending rates?

Indian banks are struggling with a lot of stressed assets, and have sought to protect their margins by trying to avoid lowering their lending rates.

### RBI efforts

The RBI last year unveiled the so-called marginal cost of funds-based lending rates (MCLR), which sought to remove much of the discretion commercial banks have to set lending rates and force them to base borrowing costs on prevailing money market rates. Banks were instructed to follow a specific formula in setting lending rates, although the RBI has since made some tweaks.

# INDUSTRY, INFRASTRUCTURE AND INVESTMENT

### **DRAFT NATIONAL ENERGY POLICY**

**Drafted by:** NITI Aayog

### Some predictions

➤ It predicts that between now and 2040, there will be a quantum leap in the uptake of renewable energy together with a drastic reduction in fossil fuel energy intensity.



- Because of economic and population growth, India's annual percapita electricity consumption is expected to triple.
- ➤ It assumes 100% electrification throughout India in the near term and steadily improving energy efficiency.

### Energy and quality of life

Energy is acknowledged as a key input towards raising the standard of living of citizens of any country, as is evident from the correlation between per capita electricity consumption and Human Development Index (HDI). Accordingly, energy policies of India have over the years directly aimed to raise per capita energy consumption. While India strives to achieve a double digit growth rate in its national income, it is equally important that clean energy is available to all the citizens.

The NEP draft comes at a time when the energy sector is seeking clarity. In the face of claims of surplus power, even as rampant energy poverty continues to plague the country, the sector needs clear signals of the future pathways.

#### Aim of the National Energy Policy

The intention of the National Energy Policy is to present a broad framework for the overall energy sector, taking into account the multiple technology and fuel options. The National Energy Policy (NEP) aims to chart the way forward to meet the Government's following bold announcements in the energy domain.

- All the Census villages are planned to be electrified by 2018, and universal electrification is to be achieved, with 24×7 electricity by 2022.
- The share of manufacturing in our GDP is to go up to 25% from the present level of 16%, while the Ministry of Petroleum is targeting reduction of oil imports by 10% from 2014-15 levels, both by 2022
- INDC (Intended Nationally Determined Contributions) target at reduction of emissions intensity by 33%-35% by 2030 over 2005.
- Achieving a 175 GW renewable energy capacity by 2022, and share of non-fossil fuel based capacity in the electricity mix is aimed at above 40% by 2030

There are four key objectives of National Energy Policy. However, these four goals may or may not move in harmony with one another.



- Access at affordable prices,
- Improved security and Independence
- Greater Sustainability and
- Economic Growth.

### **Contentious issues with the draft**

<u>Coal Energy:</u> Despite the fact that existing coal plants are running at low efficiencies, the DNEP relies on coal power to sustain the nation's base load requirement to meet rising energy demand. It proposes that coal will fuel 67% of India's power generation in 2022.

The first anomaly is that while India claims it will make a big push for renewables, it will continue to rely on coal for its base load generation.

The NITI Aayog also forecasts that "our coal industry will emerge as an exporter of coal" in the backdrop of the shocking drop in demand for coal from most industrialised.

With slow industrial growth, independent coal producers have been faced with reduced demand for their power. Power plants, both public and private, have been running at merely 60% plant load capacity utilisation. The conventional power industry already suffers a high level of bank loan defaults, insolvency and other legal proceedings. It is not surprising that new energy investors are crowding the nascent solar space.

<u>Electric Vehicles</u>: The DNEP fails to highlight the gradual substitution of internal combustion engines with electric vehicles.

 This transformation in the automobile sector could be accompanied by grid- and consumer-level electricity storage at homes, offices and factories.

<u>Oil resources</u>: The DNEP acknowledges that India's oil consumption has grown 63% from 2005 to 2016 whereas refining capacity has grown only 15%. Gas consumption has increased 38% while production has actually fallen since 2012.

India's energy security does require a large strategic storage of oil to take care of any vagaries in its international supply chain.



On the one hand, the draft policy recognises that by 2040, India's oil import dependence may reach 55% from the current level of 33%. On the other hand, it offers *nothing to curtail* such dependence.

All that the DNEP offers is to promote use of public transportation and railways to reduce oil consumption. Unless electric transport is carefully planned, India's dependence on imported oil is likely to continue.

#### **NATIONAL WATERWAY-4**

### Why in news?

Vice president Venkaiah Naidu recently laid the foundation stone for the first phase of the National Waterway-4 (NW-4) at Amravati in Andhra Pradesh. The first phase involves development of a water channel from Muktyala to Vijayawada on Krishna river along with four floating terminals and three fixed terminals to handle cargo operations.

#### **Details**

The inland waterway was declared National Waterway-4 in 2008

➤ The NW-4 would be developed in three phases.





- ➤ The project will provide an efficient logistics solution to boost the economic growth of the region and facilitate the development of Amravati during its early development stage as substantial construction material is expected to be transported on this stretch.
- ➤ It will also improve connectivity to important tourist and pilgrimage spots.

### **PARYATAN PARV**

### **Organised by:** Ministry of Tourism

#### What is it?

It will showcase the cultural diversity of the country, with cultural performances, crafts bazaar, food court showcasing folk and classical



dance & music, handicrafts & handlooms and cuisine from all regions and States of the country.

 The programme is being organized with the objective of drawing focus on the benefits of tourism, showcasing the cultural diversity of the country and reinforcing the principle of "Tourism for All".

### **Components of the Parv**

**Dekho Apna Desh:** To encourage Indians to visit their own country. This includes Video, Photograph and Blog Competitions, Quiz, Essay, Debate and Painting Competitions.

**Tourism for All:** Tourism Events at sites across all States in the country. The activities at these sites include illumination in and around the Sites, Cultural Programmes

**Tourism & Governance:** Interactive Sessions & Workshops with Stakeholders on varied themes.

#### **LAND BANK BY ODISHA GOVT**

#### What's in news?

The state government of Odisha is creating a 1.2 lakh acre land bank across the state for allocation to the industrial sector

#### What was the need?

- ✓ To avoid a repeat of the Posco fiasco.
- ✓ In order to cut red tape and wrangling with local issues in the land acquisition process, the state government is acquiring government land for industrial use and proposes to offer it with all facilities in place.

### **Backgrounder:**

Odisha government has created a huge land bank and has identified areas across the state to bring under one umbrella for the industrial sector. With the creation of the land bank, the industry department is looking for



investment in various sectors including steel, aluminium, agro and food processing based units, apparel, IT and plastic units that will further create employment potential.

### **Significance**

It is a plug-and-play kind of model wherein the facilities related to water, power, roads and all clearances are in place. The companies need to only make the payment of base premium upfront for the land and the annual rent for rest of the 90 years (their lease).

### **SCIENCE AND TECHNOLOGY**

#### **NOBEL IN MEDICINE**

#### For what?

Three US scientists have won the Nobel Prize in Physiology or Medicine "for their discoveries of molecular mechanisms controlling the circadian rhythm," otherwise known as our biological clock.

They researched on how plants, humans and animals adapt their biological rhythm to synchronize with our planet's day and night cycle, as the earth rotates, in order to control their daily life.

#### Who?

Jeffrey C. Hall, Michael Rosbash and Michael W. Young

### **Backgrounder:**

All living organisms on Earth have an internal clock, known as the circadian rhythm, which in humans underlies why we are awake during the day and sleep at night. But our biological clock also helps regulate eating habits, hormone release, blood pressure and body temperature.

 A person's well-being is affected when there is a "temporary mismatch between our external environment and this internal biological clock." For example, disruption to our clocks when someone travels across a number of time zones results in jet lag.



 An imbalance between lifestyle and rhythm could lead to increased risk for a number of diseases including metabolic diseases, such as diabetes and cancer, and neurodegenerative diseases, such as Alzheimer's disease.

### **Significance**

Research on the body clock has helped scientists improve health. Many drugs now on the market work best when taken at the right time. The cholesterol-cutting drug Mevacor, for example, is taken at night because levels of the enzyme it targets are highest then. The same is true for low-dose aspirin used to reduce blood pressure.

#### **NOBEL IN PHYSICS**

#### For what?

The scientists were awarded the Nobel prize "for decisive contributions to the LIGO detector and the observation of gravitational waves".

They have contributed to the detection of gravitational waves — ripples in the fabrics of spacetime which were predicted by Albert Einstein a hundred years ago.

#### Who?

Three American scientists from the Laser Interferometer Gravitational-Wave Observatory (LIGO)

 Rainer Weiss, Barry C. Barish and Kip S. Thorne

#### **Gravitational waves**

In simple terms, gravitational waves can be explained as ripples in the fabric of space-time which can only be caused by massive astronomical events such as

#### LIGO:

The observatory has two facilities in Livingston, Louisiana, and Hanford, Washington. They were built and operated with funding from the National Science Foundation.

The project is led by scientists from the California Institute of Technology and the Massachusetts Institute of Technology, and is supported by an international consortium of scientists and institutions.



neutron stars or black holes orbiting each other so that these waves would finally radiate from them.

### **NOBEL PRIZE IN CHEMISTRY**

### For what?

For developing cryo-electron microscopy for the high-resolution structure determination of biomolecules in solution.

#### To Whom:

Jacques Dubochet, Joachim Frank and Richard Henderson

### **Cryo-electron microscopy**

"Cryo", short for cryogenic refers to very low temperatures, generally below minus 150°C. In the context of electron microscopy, it refers to the fact that the object to be imaged is frozen to such low temperatures to facilitate being studied under the beam of the electron microscope.

This method is so effective that even in recent times, it has been used to image the elusive Zika virus.

### **NOBEL PEACE PRIZE**

**<u>To Whom?</u>** The International Campaign to Abolish Nuclear Weapons (Ican).

#### Why?

Ican has been chosen for its "groundbreaking efforts to achieve a treaty prohibition" on nuclear weapons.

### **Significance**

The Nobel Committee's decision provides a powerful and timely reinforcement of the concern attached to nuclear weapons.



- It comes at a moment when North Korea is actively developing its nuclear programme, the fate of the Iran nuclear deal is in the balance, and the US and Russia are both actively seeking to modernise their nuclear forces.
- There is of course already the Non-Proliferation Treaty, under which most countries agreed never to develop nuclear weapons and those that already had them agreed progressively to disarm.
- But campaigners have long been unsatisfied with this process insisting that the nuclear "haves" have no intention of giving up their arsenals.

#### Ican:

It is a coalition of hundreds of nongovernmental organisations (NGOs) based in Geneva, Switzerland.

Ican set about an alternative approach – to raise popular awareness of the issue and to pressure governments to open up a new treaty for signature earlier this year that would seek an outright ban on nuclear weapons.

After pressure from Ican, 122 nations backed a UN treaty designed to ban and eventually eliminate all nuclear weapons. But none of the nine known nuclear powers in the world – including the UK and the US – endorsed it.

#### **EMBRYO TRANSFER TECHNOLOGY**

### Why in news?

In a bid to conserve indigenous breed of cattle, the government has undertaken a Mass Embryo Transfer programme in Indigenous Breeds under the scheme, National Mission on Bovine Productivity.

**<u>Department:</u>** The Department of Animal Husbandry, Dairying and Fisheries, in co-operation with 12 states

**Objective**: Conservation and development of indigenous breeds under the Rashtriya Gokul Mission.

#### **Details**

Under this programme, embryos of higher genetic merit indigenous bovines are being transferred into surrogate cows.



#### ETT:

Embryo transfer technology (ETT) has revolutionized the breeding strategies in bovines as a tool to optimise the genetic improvement in cattle.

#### **Benefits of using ETT:**

- A farmer can get a 5-6 fold increase in the number of offsprings.
- The calves so born will be of high genetic merit.
- The offsprings born will be free from diseases.

#### **Rashtriya Gokul Mission:**

To conserve and develop indigenous bovine breeds, government has launched 'Rashtriya Gokul Mission' under the National Programme for Bovine Breeding and Dairy Development (NPBBD).

The Mission is being implemented with the objectives to:

- development and conservation of indigenous breeds
- undertake breed improvement programme for indigenous cattle breeds so as to improve the genetic makeup and increase the stock;
- > enhance milk production and productivity;
- upgrade nondescript cattle using elite indigenous breeds like Gir, Sahiwal, Rathi, Deoni, Tharparkar, Red Sindhi
- distribute disease free high genetic merit bulls for natural service.

Embryos of indigenous breeds such as Sahiwal, Gir, Red Sindhi, Ongole, Deoni and Vechur have been proposed to be transferred under this programme.

### **ENVIRONMENT**

#### **NEW WETLAND RULES NOTIFIED**

**Who?** Union environment ministry

**Objective:** The new Wetland (Conservation and Management) Rules 2017 prohibit a range of activities in wetlands like setting up and expansion of industries, waste dumping and discharge of effluents.

#### <u>Details</u>



- ➤ The new rules will replace the 2010 version of the rules.
- ➤ The new rules stipulate setting up of a State Wetlands Authority in each State and union territories that will be headed by the State's environment minister and include a range of government officials.
- These authorities will need to develop a comprehensive list of activities to be regulated and permitted within the notified wetlands and their zone of influence, recommend additional prohibited activities for specific wetlands
- ➤ They also define strategies for conservation and take measures for enhancing awareness.
- ➤ The State authorities will also need to prepare a list of all wetlands of the State or union territory within three months, a list of wetlands to be notified within six months, a comprehensive digital inventory of all wetlands within one year which will be updated every ten years.
- ➤ The rules prohibit activities like conversion of wetland for non-wetland uses including encroachment, setting up of any industry and expansion of existing industries, manufacture or handling or storage or disposal of hazardous substances and construction and demolition waste, solid waste dumping, discharge of untreated wastes and effluents from industries, cities, towns, villages and other human settlements.

### Criticism of new rules

The identification process by the State Wetland Authority does not distinguish between existing wetlands and especially those past wetlands which have been encroached and can be proved through legal documents.

- It also does not speak about restoration of encroached wetlands throughout the country.
- According to the 2010 rules, anyone aggrieved with the CWRA's decisions could have filed an appeal with the National Green Tribunal, but the new 2017 rules are silent on the appeal process.



#### Wetlands

Wetlands can be defined as lands transitional between terrestrial and aquatic eco-systems where the water table is usually at or near the surface or the land is covered by shallow water.

- > They support rich biodiversity and provide wide range of ecosystem services such as water storage, water purification, flood mitigation, erosion control, aquifer recharge and others.
- > But they are threatened by reclamation and degradation
- > There are at least 115 wetlands that are officially identified by the central government and of those 26 are identified as wetlands of international importance under Ramsar Convention, which is an international intergovernmental treaty for conservation of wetlands. India is a party to the treaty.

#### LONG-TERM WILDLIFE ACTION PLAN

#### Why in news?

The government has released the third National Wildlife Action Plan (NWAP) for 2017-31. The plan was released at the recently held meeting of Global Wildlife Program (GWP) that involves 19 Asian and African countries, United Nations, World Bank and other leading global organisations to deal with the wildlife crime.

### Salient features

Under the plan, there are 250 projects. It is India's road map to conserve wildlife for the next 15 years. The plan is woven around the agenda of the United Nations' 15th Sustainable Developmental Goal — "Life on Land".

- While till now programmes and plans related to wildlife were focused on and around national parks and sanctuaries, now the strategies would be based on the landscape of the region that may not be limited to a reserve forest system alone.
- Man-animal conflict mitigation, adapting to the climate change, managing eco-tourism, ensuring public participation in the conservation, developing human resources, strengthening research and monitoring through modern technology like radio collars and drones and ensuring funds for the wildlife sector have been given special thrust in the planning.



- It gives special emphasis to recovery of threatened species of wildlife while conserving their habitats.
- The government has also underlined an increased role of private sector in wildlife conservation.
- The plan lays down that the Centre would ensure that adequate and sustained funding including Corporate Social Responsibility funds are made available for the National Wildlife Action Plan implementation.

#### Backgrounder:

India is jointly hosting the Global Wildlife Programme (GWP) with World Bank and United Nations Development Programme. The GWP addresses issues related to illegal wildlife trade across 19 countries in Asia and Africa. It will act as a platform to exchange knowledge and coordinate in onground action for combating illegal poaching of wildlife and improve governance on wildlife conservation.

#### **SECURE HIMALAYA**

#### What is it?

It is a six year project launched by Union Environment Ministry in association with the United Nations Development Programme (UNDP).

<u>Objective:</u> to ensure conservation of locally and globally significant biodiversity, land and forest resources in the high Himalayan ecosystem spread over four states in India.

#### **Details**

The SECURE – securing livelihoods, conservation, sustainable use and restoration of high range Himalayan ecosystems – is meant for specific landscapes.

- Protection of snow leopard and other endangered species and their habitats is one of the key components as also enhancing enforcement to reduce wildlife crime.
- Enhanced enforcement efforts and monitoring under the project will also curb illegal trade in some medicinal and aromatic plants which are among the most threatened species in these landscapes.



### **TURTLE SANCTUARY**

**Where?** Allahabad, along with a River Biodiversity Park at Sangam under Namami Gange programme.

**<u>Objective:</u>** To protect the rich aquatic biodiversity of river Ganga from escalating anthropogenic pressures

#### **Details**

Apart from the park, the project also envisages establishment of a Turtle Rearing Centre and spread awareness about the importance of river Ganga and imperativeness of its conservation has been approved.

• The task of dissipating knowledge about river Ganga will be taken up ardently in this project, which is 100% centrally funded.

### **Backgrounder:**

Rivers Ganga and Yamuna at Allahabad are home to some of the most endangered fauna like turtles, the National Aquatic Animal – Gangetic dolphin, the Gharial and numerous migratory and resident birds.

#### **SECURITY CHALLENGES**

### **WILL THERE BE TRI-SERVICE INTEGRATION?**

#### Why in news?

While India aspires to conduct integrated military operations with a common strategy, methodology by bringing together the three services, statements in the recent past point disturbingly to renewed inter-service rivalry to protect their turf.

Cautioning against the duplication of assets by the three services, Vice-Chief of Air Staff Air Marshal has said that jointmanship among the services was not just about joint operations but also about the optimal use of resources. Ours is a growing country and our budget is limited.

#### <u>A background</u>



An expert committee appointed by the Defence Ministry recommended steps to enhance the combat potential of the armed forces and to rebalance defence expenditure, submitted its report in January.

It has recommended the creation of three integrated theatre commands — northern for the China border, western for the Pakistan border and southern for the maritime role — instead of the 17 in place currently.

### **Integrated theatre command**

An integrated theatre command envisages a unified command of the three Services, under a single commander, for geographical locations that are of security concern.

- The commander of such a force will be able to bring to bear all resources at his disposal — from the IAF, the Army and the Navy with seamless efficacy.
- The integrated theatre commander will not be answerable to individual Services, and will be free to train, equip and exercise his command to make it a cohesive fighting force capable of achieving designated goals.
- The logistic resources required to support his operations will also be placed at the disposal of the theatre commander so that he does not have to look for anything when operations are on-going.

This is in contrast to the model of service-specific commands which India currently has, wherein the Army, Air Force and Navy all have their own commands all over the country. In case of war, each Service Chief is expected to control the operations of his Service through individual commands, while they operate jointly.

#### Only one integrated theatre command

India has only one integrated theatre command, which is the Andaman and Nicobar Command (ANC).

• It was formed in 2001, after the Kargil War.

The other tri-service command, the Strategic Forces Command (SFC), looks after the delivery and operational control of the country's nuclear assets. It is not an integrated theatre command but an integrated functional command.



### "Jointness" vs integrated commands

Jointness means that while the 3 Services progress and develop in their respective spheres, maintaining their independent identity, they function together — and so coordinate their operations in war as to achieve the best results.

Integrated commands, on the other hand, seek to merge individual Service identities to achieve a composite and cohesive whole. It implies enmeshing the three Services together at different levels and placing them under one commander for execution of operational plans.

#### Army wants its supremacy in a joint services environment

Army has maintained that the "supremacy and primacy of the Army in a joint services environment" is a must.

This might unleash an inter-service turf war and further delay several important decisions on tri-service integration such as the Chief of Defence Staff (CDS), specialised commands for cyber, space and Special Forces

### Need for Chief of Defence Staff

The last time India fought a major battle was the Kargil conflict in 1999 in which the Navy played a silent role while the Army and Air Force collaborated to expel intruders from Indian soil.

The lessons learnt then prompted the K. Subrahmanyam Committee to propose the idea of having a CDS for the first time. But, it appears that the other services would oppose the proposal for a CDS tooth and nail.

India has traditionally been a land power because the primary threats are still on land, from the northern and western borders. But the threat matrix has changed since 1947 and the Indian Ocean region is fast metamorphosing into a major arena of friction, with increasing forays by the Chinese Navy and building up of regional navies with help from China.

Also, while the threat of war stills exists in the subcontinent under the nuclear overhang, the room for large conventional manoeuvres is over. In a conflict situation, what would unfold are short and swift skirmishes which call for agility and swift action by the three services in harmony.



### Permanent Chairman Chiefs of Staff Committee

After much deliberation, the consensus has turned towards a Permanent Chairman Chiefs of Staff Committee (CoSC), a four star officer equivalent to the three service chiefs, while ideally what the country needs is a full-fledged five star officer. The four star officer would serve no real purpose except adding to the already existing protocol nightmare and complicating the situation further.

#### In conclusion

The Defence Ministry is yet to form a view on the subject. But experience from the US, Russia and China shows that the decision to create integrated theatre commands will have to be a political one, which will then be executed by the defence services.

A precursor to the creation of integrated theatre commands has to be the appointment of a Chief of Defence Staff or Permanent Chairman, COSC.

The recently released 'Joint military doctrine of the Indian armed forces 2017' made the right noise on "jointness" and "integration", but much work is needed on the ground to achieve desired goal.

### **TERRORISM IN SOUTH ASIA - IDEOLOGY & FINANCE**

Terrorism which is used to intentionally create violence to achieve a political, religious or ideological aim. It is originating largely from parts of South West Asia which are affected by political instability most of the time.

#### Why in news?

An Index/report ranked countries risk regarding money laundering/terrorism financing. It places India's neighbourhood nations in top 50 – Afghanistan, Nepal, Sri Lanka and Pakistan–among 146 nations. This is important as terrorism can't survive only based on ideology; it needs a finance and some state backing to sustain on a large scale.

# <u>Ideology</u>



Terrorism is mainly a political struggle for power by radicalisation of certain people. It arises when there is lack of normal means and freedom to express one's views and hence they resort to underground and violent means. This happens generally in nations which lack a democratic establishment.

People join terrorist groups when they feel certain alienation and denial of justice in their own home states. This vacuum is utilised by people having their own vested interests and thus, use religion as a tool. These ideological issues cannot be solved by security forces alone who are engaged in counter-fighting, interrogations, etc. Its onus falls on the society and state government.

### **Origins**

The Mujahideen engaged in Jihad mainly originated during the 1980s Soviet-Afghan war. It was a proxy war fought by US to win the own cold war. Pakistan, China and Gulf backed the Mujahideen. It later grew as Taliban, Al-Qaida, etc as part of the modern-day terrorism.

### **Terror Financing:**

Financing of terrorism is a mixture of both legal (provided by state support) and illegal money (Hawala channels, counterfeit, donations like from Gulf countries, etc). This needs to be controlled, to counter terrorism.

It is difficult to break the financial connection of these terror groups as money is fungible and has high liquidity. Steps like demonetisation are appreciable to check counterfeit money, black money, etc up to some extent. Moving towards a cashless society can be more helpful to keep a track of all the remittances.

But, in the age of increasing technology, there still exist other payment systems like digital currency (virtual currency, blockchain and cryptocurrency like Bitcoin). They pose challenges for financial regulators and ministries. Some multilateral agreement needs to be made to have a better control over these globally distributed currencies with almost zero barriers.

### In conclusion



India has pushed for UN convention on international terrorism. But, an international law as such like the Comprehensive Convention on International Terrorism proposed by UN General Assembly to criminalize all forms of terrorism and deny their support of finances, arms and safe havens still faces a deadlock.

Terrorism has grown because it has had some state-support in the past which provided finances to terrorists, just to serve their own political interests. To curb terrorism, the onus falls on state and society as well, apart from the security forces. The financial support available to them needs to be checked and some international convention on terrorism is the need of the hour to check the increasing rates of terror attacks.