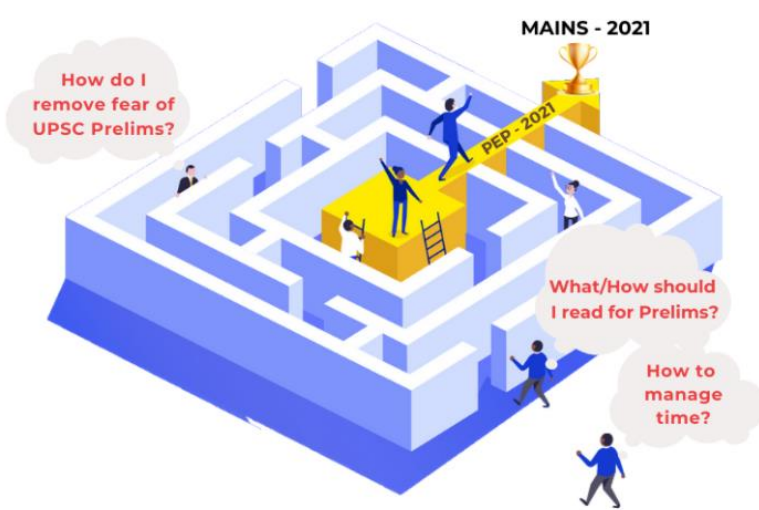




# YK GIST - JANUARY

## INDIA @ 75 PERSPECTIVES OF RURAL DEVELOPMENT





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## Preface

This is our 70<sup>th</sup> edition of Yojana Gist and 61<sup>st</sup> edition of Kurukshetra Gist, released for the month of January 2021. It is increasingly finding a place in the questions of both UPSC Prelims and Mains and therefore, we've come up with this initiative to equip you with knowledge that'll help you in your preparation for the CSE.

Every issue deals with a single topic comprehensively sharing views from a wide spectrum ranging from academicians to policy makers to scholars. The magazine is essential to build an in-depth understanding of various socio-economic issues.

From the exam point of view, however, not all articles are important. Some go into scholarly depths and others discuss agendas that are not relevant for your preparation. Added to this is the difficulty of going through a large volume of information, facts and analysis to finally extract their essence that may be useful for the exam.

We are not discouraging from reading the magazine itself. So, do not take this as a document which you take read, remember and reproduce in the examination. Its only purpose is to equip you with the right understanding. But, if you do not have enough time to go through the magazines, you can rely on the content provided here for it sums up the most essential points from all the articles.

You need not put hours and hours in reading and making its notes in pages. We believe, a smart study, rather than hard study, can improve your preparation levels.

**Think, learn, practice and keep improving!**

**You know that's your success mantra 😊**

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## INDIA AT 75

### **A. 75 Years of Independence**

*There is something unique in this soil, which despite many obstacles has always remained the abode of great souls. - Sardar Vallabhbhai Patel*

The adjective “august” means respected and impressive, something special. The month of August has special significance in the history of modern India. The freedom struggle came to fruition on August 15, 1947. Five years prior to that, the Quit India movement was launched with a clarion call to “do or die” by Mahatma Gandhi on August 8. On the fifth of this month, construction of the Ram Temple in Ayodhya commenced. These events were a culmination of long-drawn struggles that offer certain lessons for the present and the future.

India’s independence was not just about the end of colonial British rule. It was also bringing down curtains on the dark age of about 1,000 years that began with the invasion of Mahmud Ghazni in 1001. It was the period when India’s inherent weaknesses were exploited by a regular stream of invaders, traders and colonialists. The socio-cultural-economic landscape of our country was brutally battered and exploited, enfeebling the masses.

The invaders had a free run coming in and looting at will. The lack of a sense of belonging to each other and the missing unity of action and purpose among the myriad rulers of the day made the country a soft target. Solo campaigns of brave resistance by the likes of Prithviraj Chauhan, Maharana Pratap, Chhatrapathi Shivaji, Rani Laxmibai of Jhansi, Veerapandya Kattabomman, Alluri Sitarama Raju were not adequate. Moreover, there were Mir Jaffers all through. A divided nation suffered from disgrace and dismemberment. Once rich, India was reduced to an ocean of poverty and backwardness.

During this long dark period, India lost its soul and inner strength. The people began to rediscover themselves as British colonial exploitation became evident. The freedom struggle brought the people together in the quest to shape their own destiny. It was rightly called the Indian National Movement as emotive nationhood gained currency. The follies of a long period of disunity were too stark to be ignored. Finally, the Indian nation was born on August 15, 1947. It is hence appropriate to say that the hard-fought independence was the liberation of our country from the dark age of centuries marked by lack of social cohesion and the glue of nationhood.

The Quit India movement was the most defining moment of our freedom struggle. The Quit India Resolution adopted on August 8, 1942, stressed that “...the immediate ending of British rule in India is an urgent necessity for both the sake of India and for the success of the United Nations. The continuation of that rule is degrading and enfeebling India making her progressively less capable of defending herself and contributing to the cause of world freedom.”

A few hours later on the same day, in his Quit India speech, Gandhi roared with a clarion call to the people to “do or die”. The apostle of peace and non-violence who lent a moral and mass dimension to the freedom struggle, using such language had rattled the British who were already reeling under the crippling impacts of the World War-II. Why did Gandhiji say so?

Since his return to India in 1915, Gandhiji steered the freedom struggle on a new path using the “force of truth” as a weapon to open the eyes of the British to the need for letting Indians govern themselves.



His approach found resonance across the globe with British coming under pressure even from their war-time allies to mend their colonial ways. For long, Gandhiji engaged the British in negotiations, seeking to prevail on them. India was declared as a party to the Second World War without even consulting the leaders of the freedom struggle and the people. This incensed Gandhiji and others.

Fearing a Japanese invasion from the east and under pressure from the allies to gain the support of Indians for the war efforts, the Cripps Mission was sent to India. But it failed as it fell short of the demand for immediate independence for the country. Gandhiji who had a good measure of the mind of the British, their trickery of divide and rule and shifting goalposts, decided that it was the time to strike. The three words he used urging the masses to “do or die” had the fullest contextual justification and fired the imagination of the people. The then Viceroy Linlithgow unleashed violence to quell the movement, but it lasted for two years.

The freedom struggle was marked by different streams of thought and action. To start with, moderates like Dadabhai Naoroji and Pherozeshah Mehta took to petitioning the British for incremental improvements. Assertive nationalists like Lala Lajpat Rai, Bal Gangadhar Tilak and Bipin Chandra Pal believed in bold action. Revolutionaries like Khudiram Bose, Chandrasekhar Azad, and Bhagat Singh took to armed resistance. Netaji Subhash Chandra Bose revived the INA and sought Japanese help to evict the British from India. It was, however, Mahatma Gandhi who emerged as the voice of the freedom struggle for over 30 years.

Though territorially not integrated, the people had been in different kingdoms and provinces over the centuries, they were bound by shared cultural norms and values. Temples were key instruments of such cultural homogeneity. The foreign invaders were bent on destroying this cultural fabric. Major temples were attacked, looted and destroyed, resulting in sacrilege.

Mahmud Ghazni attacked the famous Somnath temple umpteen times during 1001-25. It took over 925 years to rebuild and restore it. It took about 500 years to start construction of the Ram temple. Such is the price paid for being divided for too long.

Some apologists of colonialism have sought to portray British rule as beneficial to India. Nothing is farther from the truth. All the initiatives of the British were guided by their commercial and administrative interests. The noted economist Utsa Patnaik, based on nearly two centuries of data on tax and trade, estimated that Britain drained about \$45 trillion during 1765-1938 in different ways. This was 17 times the GDP of the UK. Indians were fleeced to support the advancement of the UK. During the 200 years of colonial rule, there was almost no increase in per capita income; during the last half of the 19th century, income in India dropped by half; the average life expectancy dropped by a fifth during 1870-1920. India would have emerged as an economic powerhouse if its revenues were invested within the country.

The humiliating experiences of the last millennium should guide us. The first lesson is — united we stand, divided we fall. An emotionally integrated India offers the best defence against both internal and external threats and challenges. We need to knit an India based on the principles of democratic-righteous governance that upholds equality of all and equal opportunities for all. We need to empower every Indian with the necessary tools to realise his or her fullest potential. A strong sense of Indianness that supersedes all other identities and a deep commitment to national interest should guide our actions.

In the present global order, it is the economic power that enables a nation to have its say. We need to fully harness our economic potential. For this, we need to scale new heights in scientific, technological, industrial and human resource development domains. The effective functioning of the legislatures, judiciary and the executive should be ensured by removing all the impediments.

As we move closer to celebrate the 75 years of our independence, our motto should be — perform or perish. This applies to all individuals and institutions. Realise your strength, build on them and create a united, prosperous India.

### **B. Democracy, Polity & Governance**

#### **Different definitions of Democracy –**

- *“Democracy is a government of the people, for the people, and by the people.”*
- – Abraham Lincoln
- *“Democracy really means nothing more or less than the rule of the whole people, expressing their sovereign will by their votes.”*
- – Bryce
- *“Democracy is not a way of governing, whether by majority or otherwise, but primarily a way of determining, who shall govern, and broadly to what ends.”*
- – MacIver

#### **Idea of Democracy during British India and Post-independence**

##### *Mahatma Gandhi on Democracy*

- “Democracy must mean the art of science of mobilizing the entire physical, economic and spiritual resources of all the various sections of people in the service of the common good for all.”
- “To safeguard democracy the people must have a keen sense of independence, self-respect and their oneness, and should insist upon choosing as their representatives only such persons as are good and true.”

Gandhian concept of Self Rule means Swaraj is real democracy, where people’s power rests in the individuals and each one realizes that he or she is the real master of one’s self.

##### *Nehru on Democracy*

- “Democracy, if it means anything, means equality; not merely the equality of possessing a vote but economic and social equality.”

##### *Karachi resolution*

- In 1931, the resolution at the Karachi session reflected the vision of democracy that meant not just formal holding of elections but a substantive reworking of the Indian social structure in order to have a genuine democratic society.

The framers of the Indian Constitution were inspired by principles of social equality and political justice to introduce adult suffrage immediately—a big step forward to protect our Indian Democracy.

After independence, India decided to have democratic political system. This system is characterised by three elements: one, there is a high degree of autonomy; two, economic agents and religious organisations are free from political interference; and three, competition between various orders does not endanger integration but helps it.

**The definition of democracy is incomplete unless it is defined in social and individual contexts.**

The first generation of Indian leaders wanted their country to be a liberal democracy, in which a person's faith—or language, or caste, or gender—didn't earn her better or worse treatment by the state.

**Positive aspects of Democracy:** Positively, democracy seeks to maintain and assert the below rights:

- the right to free expression of opinion and of opposition and criticism of the Government of the day;
- the right to change the Governments of which the people disapprove through constitutional means;
- protection from arbitrary interference on the part of the authorities, primary safeguards against arbitrary arrest and prosecution;
- fundamental rights of citizens, subject to their duties to the state;
- the right of minorities to be protected with equal justice under law;
- equal treatment and fair play for the poor as well as the rich, for private persons as well as Government officials;
- The right to hold unpopular or dissident beliefs.

**Ethical foundation of democracy:**

- **Principle of mutual respect:** every citizen is given equal rights and everyone owes others when they make decisions that affect others. E.g. Right of religion as an individual affair.
  - **Minority rights:** with majority not being authoritarian and respect minorities as individuals with equal rights.
  - **Freedom of expression:** to every individual including the right to criticize the very government they elect.
- **Social equality:** every person is given due opportunity in economy, political space and social space regardless of their social class background.
- **Deference to the majority:** decisions must be taken taking due considerations of the minorities as well. The end goal is to come to consensus-based decision making.
- **Integrity:** of the elected government to implement the promises made, of the appointed officials to work with honesty and dedication to public service.
- **Power:** sovereignty of the public with the principle by the public, for the public of the public. No person can retain power for eternity and total absence of Authoritarian regimes and leadership. E.g. Change of power after emergency.
- **Transparency and accountability:** Government as the representative of the public interest, guardian of public resources. For the same reason, we have meritorious and watch dogs like UPSC, CAG and so on.
- **Welfare state:** Democratically elected government is the protector of individual rights and act in interests of public to uplift them. Thus, every decision taken by the government must benefit the public and should have wide approval. E.g. Brexit when citizens favour it, right to recall etc.,
- **Equity and effectiveness:** the principle of 'putting the last first' of John Rawls theory of justice is followed which is also enshrined in the Indian constitution as equal protection of law under Article 14.

**Social contract theory of John Locke** premises the ethical foundation as a part of democracy where in the citizens give up their rights to be ruled in a civil society and the elected will be a philosopher king who works for societal development. Democracy is driven 'by the people', but is just only as long as the one driving it and the one being driven are ethical.



### Modern day democracy on decline

Since independence, India has managed to stay on the democratic path in a way unprecedented among states freed from colonialism during the last century. The makers of our Constitution designed the institutions of our democracy with great care and attention to detail. They were designed to endure and it was expected that these institutions will strengthen the democracy in India.

- **Rampant corruption:** The biggest challenge and threat that our democracy is facing is the rampant corruption. Corruption continues to exist in covert and overt ways at all three levels— political, bureaucratic and corporate sector. Corruption is a sign of political instability and institutional decay, challenging seriously the validity and propriety of governance.
- **Unholy nexus between politicians, civil servants and business houses** during the last few years to influence on public policy formulation and governance has resulted in corruption and corrupt practices.
- **Criminalisation** of Politics has also tarnished the image of Indian electoral politics. The news of muscle power, money power and worthless propaganda during elections are demeaning the sanctity of election. Even after the elections, the practices of unnecessary and unreasonable horse-trading have also been alarmingly increasing.
- **Disunity among different communities:** The greatest threat to the Indian democracy and polity today is disunity among the different communities of the country. Freedom of expression has been curtailed; institutions of democracy are weakened and diminished; democratic deliberation has been bypassed; attacks on religious minorities have been carried out.

At a time when politics almost everywhere is leaning dangerously towards a centralised, authoritarian, national security state with a strong leader committed to the ideology of cultural nationalism, the values and ideas of democracy provided by early leaders becomes important. The values and democratic principles embraced by them are relevant not yesterday or today but forever!!

## C. Industry @ 75

### Historical Background

- The advent of Britishers in India led to the decay of the Indian handicraft industry and machine made goods started flooding into the Indian markets post-Industrial revolution. The policies of British encouraged the import of their goods and export of raw materials from India. But soon after Independence, through the subsequent five-year plans, government shifted its focus on industrialisation.
- The First Five-year Plan mainly focused on the development of both the private and public sectors. The second plan on Mahalanobis Model gave priority to Industrialisation. The third plan along with the first and second ones helped build up the capital goods industries in India.
- Between 1965- 1980, industrial growth saw a decline mainly due to the negligence of the consumer goods sector in the first three plans. But between 1980-1991, industries recovered from downfall due to an increase in the productivity of Indian Industries and improvement in manufacturing and capital goods sector.
- Post-1991 economic liberalisation of India, many reforms were brought which helped shape the future of industries in India.

### **Current Situation**

India is the fifth largest manufacturer in the world with a gross value added (GVA) of INR 21,531.47 billion in 2017-18 (2nd advance estimate for 2017-18 at 2011-12 prices). The sector registered a compound annual growth rate (CAGR) of around 7.7 per cent between 2012-13 and 2017-18.

The government has taken several initiatives to promote manufacturing. Among these are the Make in India Action Plan aimed at increasing the manufacturing sector's contribution to 25 per cent of GDP by 2020, the Start-up India initiative to promote entrepreneurship and nurture innovation, and the Micro Units Development and Refinance Agency (MUDRA) and Stand-up India to facilitate access to credit. It has also undertaken massive recapitalisation of public sector banks to ease availability of credit to micro, small and medium enterprises (MSMEs). Besides, it has undertaken major infrastructure projects, such as the setting up of industrial corridors, to boost manufacturing.

The Department of Industrial Policy & Promotion (DIPP) has been engaging with states/UTs to enhance the ease of doing business. Following concerted efforts of the government, the World Bank ranked India 100th among 190 countries in the Ease of Doing Business (EODB) in 2018. This was a jump of 34 positions since 2014. While these indices are useful for comparison, actual improvement in EODB will come only with greater coordination between the centre and states.

The foreign direct investment (FDI) regime has been substantially liberalized, significantly improving India's rank in terms of annual FDI inflows from 14 in 2010 to 9 in 2017. However, India receives only 25 per cent of the FDI that China gets and only 10 per cent of what the USA receives. FDI inflows into the manufacturing sector reached about 35 per cent of total FDI.

Manufacturing as a percentage of the gross domestic product has remained at about 16 per cent. Improvement are evident in recent quarters, where manufacturing growth at 6.9 per cent and 8.1 per cent in Q2 and Q3 2017-18 (year-on-year as compared to 2016-17) outpaced GDP growth.

### **Objectives**

- Double the current growth rate of the manufacturing sector by 2022.
- Promote in a planned manner the adoption of the latest technology advancements, referred to as 'Industry 4.0', that will have a defining role in shaping the manufacturing sector in 2022.

**Constraints:** The main constraints on achieving the objectives set for India's industry in 2022-23 are the following:

**Regulatory uncertainty:** Regulatory risks and policy uncertainty in the past have dented investor confidence.

**Investment:** There has been a cyclical slowdown in fresh investment since 2011-12.

**Technology adoption:** The adoption of new technologies like artificial intelligence, data analytics, machine-to-machine communications, robotics and related technologies, collectively called "Industry 4.0", are a bigger challenge for SMEs than for organized large-scale manufacturing. Data security, reliability of data and stability in communication/transmission also pose challenges to technology adoption.

**Exports and insufficient domestic demand:** There has been no export driven industrial growth. Domestic demand alone may not be adequate for sustained, high value manufacturing.

**Challenges to doing business:** Despite recent improvements in our global EODB rank, it continues to be a drag on the system. This is also true of investment conditions in the states. Getting construction permits, enforcing contracts, paying taxes, starting a business and trading across borders continue to constrain doing business.

### Way Forward

#### *Demand generation, augmentation of industrial infrastructure and promotion of MSMEs*

- The government can play a crucial role in creating domestic manufacturing capabilities by leveraging proposed public procurement and projects. Mega public projects such as Sagarmala, Bharatmala, industrial corridors, and the Pradhan Mantri Awas Yojana (PMAY) can stimulate domestic manufacturing activities provided the projects are suitably structured and demand is aggregated strategically. This should be accompanied by simplification of the regulatory process. The Madhepura Electric Locomotive Project, a joint venture between the Indian Railways and the French multinational Alstom, provides a good example of how mega projects can be leveraged to boost domestic production. The project enabled effective transfer of technology and the availability of state-of-the-art locomotives for the railways. The Madhepura model is replicable in the defence, aerospace, railways and shipping sectors.
- Set up a portal to monitor projects beyond a given threshold so that any roadblocks are identified and addressed on a real time basis. State governments should be encouraged or incentivized to contribute data to this portal. NITI Aayog's Development Monitoring and Evaluation Office (DMEO) can help set up the portal. An inter-ministerial body with representatives of state governments and project promoters (as special invitees) may be constituted.
- Efforts should be made to develop self-sufficient clusters of manufacturing competence, with Cluster Administrative Authorities empowered to provide single window clearances to entrepreneurs and investors. Industrial corridors should address the lack of infrastructure and logistics. Logistics will need to be supplemented with warehousing and other elements of the manufacturing supply chain.
- NITI Aayog could work with states to prepare manufacturing clusters and develop export strategies based on their sector competitiveness and resource strengths. A cluster should have supporting industries and infrastructure. It should also develop a local brand and distribution channel through an e-commerce platform. A Cluster Administration Office should be given the responsibility to award factory permissions and compliances.
- For India to become the world's workshop, we should encourage further FDI in manufacturing, particularly when it is supported with buybacks and export orders.
- Streamline discretionary powers vested at different levels of governance by adopting digitized processes and making all approvals electronic in a transparent, time bound manner.
- Disruptive technology, while leading to job losses in traditional areas, also presents new job opportunities. A greater connect between government-industry-academia is required to identify the changing requirements in manufacturing and prepare an employable workforce. In the context of employability of engineers, there is a need for thorough review of standards of engineering education and its linkages with industry.
- E-commerce can be the driver of overall economic growth over the next decade through its impact on generating demand, expanding manufacturing, employment generation and greater transparency. A Committee, chaired by CEO, NITI Aayog examined issues related to the e-commerce industry. It made recommendations for the sector's growth including increasing

internet access, digitizing payments, further improving transportation infrastructure, logistics and distributed warehousing support. These may be examined for implementation at the earliest.

- Harmonize Indian quality standards with global standards in many sectors. Lack of harmonization has affected Indian exports and prevented the leveraging of trade agreements adequately. For e.g., the medical device industry would benefit greatly from conformity to standards that are essential for new products to be acceptable to doctors and patients abroad. The issues of regulations and standards setting are also intertwined. The following initiative is required in this regard:
  - Task the Bureau of Indian Standards and Quality Council of India with assessing the improvements in standards and productivity required to achieve global standards.
- Address the following issues in respect of MSMEs:
  - Setting up of mega parks and manufacturing clusters in labour intensive sectors with common facilities to reduce costs and improve quality. It is also recommended that state governments should set up plug and play parks (flatted factories) to ensure international productivity standards.
  - Workers of industrial units in the new mega parks should have decent accommodation within reasonable proximity of the work place.
  - An expert committee should examine sector-specific pain points and make its recommendations within three months.
  - The Department of Public Enterprises (DPE) should ensure registration of all public sector units (PSUs) on the Trade Receivables Discounting System (TREDS) portal.
  - Initiate a small business research programme in some select ministries for encouraging R&D in MSMEs.

### **Industry 4.0**

- Launch a major initiative to push industry to adopt Industry 4.0. Industry 4.0 is characterized by increasing digitization and interconnection of products, value chains and business models. It will significantly impact sectors like automobile, pharmaceuticals, chemicals and financial services and will result in operational efficiencies, cost control and revenue growth. Experts feel that emerging markets like India could benefit tremendously from the adoption of Industry 4.0 practices.
- In his 2018 Budget Speech, the Finance Minister mandated NITI Aayog to initiate a national programme directing India's efforts on Artificial Intelligence . On a similar note, NITI Aayog could organize a discussion on "Industry 4.0," inviting leading manufacturing companies from various sectors including automobile/auto components, electrical and electronics, chemicals, cement/steel, etc., along with concerned ministries to discuss plans for adopting Industry 4.0.
- The Indian Institute of Science, a few select Indian Institutes of Technology (IITs), National Institutes of Technology (NITs) and other premier engineering colleges should create specialized training programmes on 'Smart Manufacturing' to address the shortage of high-tech human resources.
- The Department of Heavy Industry (DHI) should develop the Central Manufacturing Technology Institute (CMTI), Bangalore, as a Centre of Excellence for pursuing R&D in Industry 4.0 technologies and systems. The Department of Science & Technology should spearhead industry-academia R&D projects on cyber physical systems.
- The development of industries that produce the key building blocks forming the basis of Industry 4.0 could be incentivized. Incentives could be focused on MSMEs that manufacture

products including sensors, actuators, drives, synchronous motors, communication systems, computer displays, and auxiliary electromechanical systems. Similarly, industries adopting Industry 4.0 standards could be provided support for a fixed period of time

- Reliability, stability and integrity of smart manufacturing systems can be increased by creating Indian standards for the systems and sub-systems for adoption by manufacturers.

### ***Ease of doing business***

- Introduce a “single window” system in all states that provides a single point of contact between investor and government and facilitates all required licences and approvals. It should be based on stakeholder consultation.
- For efficient approval/inspection process, develop a system of accountability for major stakeholders like inspection bodies, testing labs, etc.
- For geographical planning and ease of environmental clearances, adopt the system of using Geographic Information System (GIS) based maps at all levels to create pre-approved land banks for manufacturing facilities. This is already being practiced in some states. In such designated land banks, standards can be clearly laid down in advance relating to (i) environmental requirements (ii) building byelaws, and (iii) safety and other norms.
- Replicate in other states the Gujarat Pollution Control Board (GPCB) Environmental Audit Scheme based on third party certification.
- To strengthen third party certification systems, develop suitable accreditation agencies.
- Ensure the seamless integration of the Shram Suvidha portal and state agencies’ portals.

## **D. Education for New India**

### ***Objectives***

- Universal access and retention:
  - Hundred per cent enrolment and retention at elementary education and secondary education levels; achieve zero dropouts until Class X.
  - Equitable participation by all society segments, in terms of attendance, retention and years of schooling to ensure maximum social inclusion.
- Improvement in learning outcomes for elementary and secondary education, as measured by successive rounds of the National Achievement Survey (NAS).
- Creating a robust framework for tracking individual students across their schooling years that incorporates data on their learning outcomes.
- Providing a real and viable alternative path for vocational education starting at higher levels to improve employability.
- Strengthening support for children as part of the school curriculum to improve child mental health.
- Higher Education
  - Increase the gross enrolment ratio (GER) in higher education from 25 per cent in 2016-17 to 35 per cent by 2022-23.
  - Make higher education more inclusive for the most vulnerable groups.
  - Adopt accreditation as a mandatory quality assurance framework and have multiple highly reputed accreditation agencies for facilitating the process.



- Create an enabling ecosystem to enhance the spirit of research and innovation.
  - Improve employability of students completing their higher education.
- There cannot be a quality education system without quality teachers. Therefore, a thorough revamp of the entire ecosystem of teacher education both at the school and college level is necessary.
  - Enforcing minimum teacher standards through rigorous teacher eligibility tests and criteria for the induction of teachers.
  - Improving in-service teacher training system.
  - Increasing teacher accountability for learning outcomes of students.
  - Addressing the problem of teacher vacancies and teacher absenteeism.
- For harnessing the demographic advantage that it enjoys, India needs to build the capacity and infrastructure for skilling/reskilling/up-skilling existing and new entrants to the labour force.
  - Increase the proportion of formally skilled labour from the current 5.4 per cent to at least 15 per cent of India's workforce.
  - Ensure inclusivity and reduce divisions based on gender, location, organized/unorganized, etc.
  - India's skill development infrastructure should be brought on par with global standards by.
    - Developing internationally compliant National Occupation Standards (NOS) and the Qualification Packs (QP) that define a job role.
    - Making all training compliant with the National Skills Qualification Framework (NSQF).
    - Anticipating future skill needs to adapt skill development courses.
  - Skill development should be made an integral part of the secondary school curriculum.

### **Journey since Independence**

We began the journey of Free India with a relatively low level of attainment of education. Back then we had only 17 universities and 636 colleges and 190,441 schools. The standard of education was unsatisfactory with too much emphasis on English and too little on Indian languages — estranged from Indian Knowledge system.

- Significant development has been made post the enactment of the **Right of Children to Free and Compulsory Education Act 2009**. The literacy rate presently stands to 74.04%.
- As per the latest edition of the **Quacquarelli Symonds (QS) World University Rankings** in comparison to 21 institutions in 2019, the latest edition has seen 26 Indian departments entering the top-100 list for their subjects.
- For the first time **India is among the 50 countries with a rank of 48 in the Global Innovation Index**. Even in the Employability Rankings 2020, India has improved its ranking from 23 in 2010 to **15 in 2020**.

The Ministry of Education has introduced the **National Education Policy (NEP)**.

- It lays special emphasis on the development of the creative potential of each individual, in all its richness and complexity with global mindset.
- The NEP will enable students to move towards 'learning to learn', with the spirit of critical inquiry, problem solving and creativity. Along with science and mathematics, the curriculum and vocations will equally include arts, crafts, humanities, games, sports, languages, literature, culture, and values.

Thus by 2022, New India will provide a strong foundation for an education system based upon the principles of accessibility, equity, quality, affordability and accountability.

### E. Successful Endeavour in Space

The Indian space programme has come a long way in the 57 years since its inception. From a fledgling Sounding Rocket Launch Facility established in the early 1960s in Thumba near Trivandrum, it has matured into a giant world-class space power.

#### Beginning of Space Programme

- The Indian space programme began in a modest way in 1962 with the formation of the Indian National Committee on Space Research (INCOSPAR). The formal beginning of the Indian space programme can be traced to the launch of a Nike-Apache sounding rocket on November 21, 1963 from Thumba.
- Later, Thumba became an international sounding rocket launching facility and such rockets were launched for upper atmospheric, geomagnetic and space research by many countries.
- In 1969, the Indian Space Research Organisation (ISRO) was formed.

#### Progress and Achievements

- The 70s were the learning phase during which many experimental satellites were built, including **India's first satellite Aryabhata**, which was launched in 1975 from a launch centre in the **former Soviet Union**.
- **Bhaskara 1 and 2**, the two experimental earth observation satellites, provided the rich experience. Today, India is a world leader in the satellite-based remote sensing area.
- **APPLE, India's first experimental communication satellite**, launched by the European Ariane rocket, reached its final geosynchronous orbital home in June 1981.
- **Aryabhata, the two Bhaskaras**, as well as APPLE were launched free of cost, which reflects **India's successful international space cooperation policy**.
- ISRO conducted two significant experiments in the 70's — **SITE and STEP** — to obtain hands-on experience on the utilisation of satellites for television broadcasting and telecommunications.
- ISRO developed its **first Satellite Launch Vehicle SLV3** and successfully launched in July 1980. As a result, India entered into the select league of six countries with the capability to launch satellites on their own. Later, India developed ASLV, a more capable launch vehicle compared to SLV-3.
- **INSAT- 1B, India's first multipurpose operational satellite** was launched in 1983. It brought revolution in in India's telecommunications, television broadcasting and weather forecasting fields.
- In 1988, **IRS-1A, the first operational satellite built in India** started imaging the earth from orbit. During the 1990s, ISRO began building INSAT-2 series of multipurpose satellites indigenously.
- Today, India has a fleet of advanced remote sensing satellites equipped with high resolution and multispectral cameras dedicated to the themes of cartography, resource survey and ocean and atmospheric applications.
- Apart from these polar orbit-based observation satellites, weather watching satellites **INSAT-3D and INSAT-3DR — circling the earth in the 36,000 km high geosynchronous orbit**, are providing valuable inputs to weather forecasting. Apart from these satellites, the Indian National Satellite (INSAT) system today is one of the largest domestic communication satellite systems in Asia-Pacific region.
- High throughput satellites such as **GSAT-11, GSAT29 and GSAT-19** are supporting the "Digital India" campaign by boosting the broadband connectivity to the rural and inaccessible Gram Panchayats in the country.

### Launch Vehicles by ISRO

- Till now, ISRO has developed five launch vehicles (**SLV-3, ASLV, PSLV, GSLV and GSLV Mk III which is also known as LMV3**) and mastered the technology of rockets that use solid, liquid as well as cryogenic propellants.
- **Polar Satellite Launch Vehicle (PSLV) is the third generation launch vehicle** of India. It is the **first Indian launch vehicle to be equipped with liquid stages**. With 49 successful flights over the years, PSLV has emerged as the reliable and versatile workhorse launch vehicle of India. On February 15, 2017, PSLV created a world record by successfully placing 104 satellites (launched by PSLV-C37) in orbit during a single launch.
- **Geosynchronous Satellite Launch Vehicle Mark II (GSLV Mk II)** is fourth generation launch vehicle having three stages (including the cryogenic upper stage). Cryogenic technology involves storage of liquid hydrogen and liquid oxygen at very low temperatures.
- With the successful qualification of the indigenously developed **Cryogenic Upper Stage in the GSLV-D5** flight in January 2014, ISRO demonstrated its mastery of cryogenic rocket propulsion.
- **GSLV Mk III, India's fifth generation satellite launch vehicle** has two solid strap-ons, a core liquid booster and a cryogenic upper stage. The vehicle is designed to carry 4-ton class of satellites into Geosynchronous Transfer Orbit or about 10 tons to Low Earth Orbit (LEO).
- With the successful injection of Chandrayaan-2 in to Earth Parking Orbit in July 2019, GSLV Mk III successfully entered into its operational phase.
- India's Reusable Launch Vehicle Technology Demonstrator (RLV TD) was successfully flight tested in May 2016.
- The first experimental mission of **ISRO's Supersonic Combustion Ramjet (SCRAMJET) engine** towards the realisation of air breathing propulsion system was also successfully conducted in August 2016. With this, India became the fourth country to flight test the SCRAMJET engine.

### Science Missions

- ISRO entered into the realm of science missions with a unique mission, **Space Capsule Recovery Experiment-1 (SRE-1)**. Launched by PSLV in January 2007, SRE-1 with its scientific experiments orbited the Earth for 12 days and was successfully deorbited and recovered over Bay of Bengal.
- The space science missions of India - **Chandrayaan-1, Mars Orbiter Mission, Astrosat and Chandrayaan-2** - have caught the attention of millions.
- Launched by PSLV in October 2008, the **Chandrayaan-1** spacecraft was successfully navigated to the Moon. With this mission, India became the fourth country to send a probe to the lunar surface after the United States, the Soviet Union and Japan. Later, when Chandrayaan-1 conclusively **discovered water molecules on the lunar surface**, it was widely hailed as a **path-breaking discovery**.
- **Mars Orbiter Mission** demonstrated India's capability to build, launch and navigate an unmanned spacecraft to Mars. Launched by PSLV in November 2013, the Mars Orbiter Spacecraft encountered Mars on September 24, 2014. With this, ISRO has become the fourth space agency to successfully send a spacecraft to Mars orbit. **Achieving success in the first mission itself** is yet another accomplishment of ISRO.
- **AstroSat** launched by PSLV in September 2015, is the **first dedicated Indian astronomy mission aimed at studying celestial sources in X-ray, optical and UV spectral bands** simultaneously. AstroSat recently made a major breakthrough by **discovering one of the earliest galaxies** in extreme-Ultraviolet light.
- **The Chandrayaan-2 mission**, India's second mission to the **moon**, was successfully launched in July 2019. The eight instruments onboard the Orbiter are continuously providing useful science

data which will enrich our understanding of the moon's evolution and mapping of the minerals and water molecules in Polar regions.

- ISRO has successfully established and operationalised **Navigation with Indian Constellation (NavIC)** which provides highly accurate Position, Navigation and Time information to users in India and its surroundings. Global Standards body 3rd Generation Partnership Project (3GPP), which develops protocols for mobile telephony, has approved NavIC.
- Further, through **GPS Aided GEO Augmented Navigation (GAGAN)**, ISRO is providing Satellite based Navigation services with accuracy and integrity required for civil aviation applications and to provide better Air Traffic Management over Indian Airspace.
- Apart from this, ISRO has also facilitated students in building/ launching satellites for various applications. So far, 10 student satellites have been launched by ISRO.
- The **“Gaganyaan Programme”**, approved in 2018, has the objective of **demonstrating human space flight capability to Low Earth orbit** with 3 crew members for 5-7 days in orbit and safely recover them after the mission.

### Capacity Building

- Towards capacity building in human resources and to meet the growing demands of the Indian Space Programme, the Indian Institute of Space Science and Technology (IIST), a deemed university, was established at Thiruvananthapuram in 2007.
- Recently, the space sector was opened up to promote, handhold, regulate and authorise private enterprises and start-ups to undertake space activities by creation of the Indian National Space Promotion and Authorization Center (IN-SPACe).
- Space science missions like Chandrayaan-3, Aditya-L1, Mission to Venus to further explore the solar system, are in progress.

## F. FISCAL FEDERALISM

“Fiscal Federalism’ refers to the financial relations between the country’s Central Government and other units of Government. It essentially represents how expenditure and revenue are allocated across different layers of Government administration. Fiscal federalism helps Government realise cost efficiency by economies of scale in providing public services.

### Historical Evolution of Fiscal Federalism in India

- In India, fiscal federalism originated in pre-independence India. Over time, a rigid unitary system with immense scope of discretionary power to the Central Government was transformed into a constitutionally regulated federal system.
- By 1858, there was no standardised system of accounting and annual budgets did not exist. Central Government retained the entire control on finances. Local Governments collected revenue as agents of Central Government resulting in no direct interest in the result of collection.
- Later, the Government of India Act, 1919 introduced a system of diarchy, dividing the administrative subjects and sources of revenue into two categories — Central and Provincial.
- In 1927, Simon Commission reviewed the Government of India Act, 1919 and recommended the establishment of a federation of Indian States and provinces.

- Thereafter, the Expert Committee of 1931 with Lord Viscount Peel as the Chairman, examined the fiscal relations between the Centre and Provinces and suggested sharing of income tax between Centre and Provinces while fixing the share of Provinces for a period of five years.
- Based on these recommendations, the Government of India Act, 1935 was brought forth which established a federal system with Provinces and Indian States as two distinct units. Thus, the Act of 1919 and Act of 1935 established a basic structure of fiscal federalism in India, where Act of 1919 provided for a separation of revenue heads between the Centre and the Provinces, and the Act of 1935 allowed for sharing of Centre's revenues and for the provision of grants-in-aid to Provinces.

### **The Federal Character of Public Finance in India**

- Federalism is an essence of the constitution. The Constitution specifies taxation powers of both the Centre and the State and the principles governing the sharing of revenue and certain other resources.
- Post implementation of Goods and Services Tax (GST) which is shared between Centre and States, Central Government retains the exclusive right for income tax (corporates and individuals) while States have the right to collect stamp duty, excise duty on alcoholic beverages, registration/ commercial use of vehicles, and a few other minor taxes.

### **Central Transfers to States**

- In India, in order to correct the vertical and horizontal imbalance and for equitable and efficient development, the Central Government transfers funds to State Governments as General-Purpose transfers and Specific Purpose transfers.
- The General-Purpose transfers are untied funds devolved to the State Governments via the Finance Commission.
- Finance Commission is appointed every five years since 1951 under Article 280 with the purpose of addressing the horizontal and vertical imbalance. It recommends the criteria for devolution of central taxes to States and the principles for distribution of grants-in-aid. 15th Finance Commission has already made recommendations for 2020-21.
- Remaining Central transfers to States are in the form of Specific Purpose Transfers which may also be termed as tied transfers. These transfers are made by the concerned Central Ministries/Departments in the form of Centrally Sponsored Schemes (CSS).
- Up till 2014-15 the developmental plan transfers made by the erstwhile Planning Commission also constituted tied transfers, The Planning Commission transfers included formula-based transfer of Normal Central Assistance and discretionary transfers such as Special Plan Assistance, Assistance for Externally Aided Projects, etc. The responsibility of funds allocation is now entrusted to the Ministry of Finance.

### **Transfers of Resources to Local Bodies**

- It was only after 73rd and 74th Constitutional Amendment Acts passed in 1992, the two-tiered Indian federal structure evolved into three-tiered structure.
- Article 243 (I) & Article 243 (Y) further necessitated constitution of State Finance Commissions at regular interval of five years, to decide distribution of net proceeds of taxes between State and Panchayats, determination of taxes, duties, tolls etc. to be assigned to Panchayats and Municipalities, grant in aid to be provided to the Panchayats and Municipalities.



### **Major pronouncement which brought about structural changes in the Centre State financial relations:**

#### **1. Increase in untied funds devolved to States**

- Following the recommendation of FC-XIV to increase the share of union tax proceeds from 32% to 42%, the biggest increase ever, the share of FC grants in total transfers increased to 74%.
- This whopping increase of 10% in the share of union tax proceeds underpins the objective of greater fiscal autonomy to States

#### **2. Rationalisation of Centrally Sponsored Schemes (CSS)**

- The most recent rationalisation took place in 2016-17 based on the recommendations of the subgroup of Chief Ministers on Rationalisation of Centrally Sponsored Schemes.
- The number of CSS were reduced from 66 to 28, the funding pattern of core schemes was changed for large States to 60:40 (Centre: State) from 70:30 earlier; the flexibility for States to use funds as per their local needs and requirements within schemes was increased from 10% earlier to 25%; each Ministry/Department along with NITI Aayog were recommended to evolve transparent criteria for allocation under each scheme and NITI Aayog was entrusted with carrying out third party evaluation to improve efficiency of expenditure and to improve outcomes.

#### **3. End to Centralised Planning Era and Discretionary Grants**

- Plan and Non-Plan distinction in the budgeting exercise was done away with by the Union Budget 2017-18.
- Discretionary transfers such as additional central assistance, special plan assistance, granted by the erstwhile Planning Commission were discontinued.

#### **4. Introduction of Goods and Services Tax (GST)**

- The Constitution now with Article 279A, provided for creation of a GST Council which is a joint forum of the Union and States entrusted with the responsibility of making recommendation on GST rates, taxes, cesses, exemptions etc.
- This unique institution has been working in an exemplary manner resonating cooperative federalism.

#### **5. Outcome Based Budgeting**

- An expenditure reform was introduced in 2017-18 with the formulation of output outcome framework for 68 Ministries/ Dept. along with the Union Budget document.
- Data Monitoring and Evaluation Office of NITI Aayog and Public Finance (States) of Ministry of Finance are key coordinators in finalising and monitoring this framework. It is an important transition from mere outlays of schemes to result-oriented outputs and outcomes.

#### **Role of NITI Aayog in Strengthening Federalism**

- On the premise that strong States make a strong nation, a number of initiatives have been taken by NITI Aayog to foster cooperative federalism. These include meetings between Prime Minister/Cabinet Ministers with all Chief Ministers; subgroups of Chief Ministers on subjects of national importance; sharing of best practices; launching of the Aspirational Districts Programme for development of backward districts; theme-based extensive engagements in various sectors; framing model laws for land leasing and agriculture marketing reforms; and area-specific interventions for North Eastern, Himalayan States and Island development.
- The Governing Council of NITI Aayog, comprising Chief Ministers of all the States and UTs with Legislatures and Lt. Governors of other UTs provides a platform whereby the Centre and the States – Team India – can come together to resolve differences and chart a common course to progress and prosperity.

- NITI Aayog has been providing relevant technical advice to the Centre, States and UTs. NITI Aayog has also established models and programmes for development of infrastructure and to reignite and establish private-public partnership, such as the Centre-State partnership model: Development Support Services to States and Union Territories (DSSS); and the Sustainable Action for Transforming Human Capital (SATH) programme.
- NITI Aayog has endeavoured to promote competitive federalism by facilitating improved performance of States/UTs by encouraging healthy competition through transparent ranking in various sectors.
- Some of the indices launched by NITI Aayog include Education Index; Health Index; Composite Water Management Index; SDG Index; and Delta Rankings for Performance of Aspirational Districts.
- Once districts compete amongst themselves, States would emerge stronger and when States compete amongst themselves, nation becomes stronger. This will help us weaken the tendency for ‘competitive populism’ and replace it with ‘competitive good governance’.

### **Moving Forward**

- The challenge of striking balance between efficiency and equity has always been a critical aspect in federalism. Meeting the aspiration of States is the foremost priority of Indian fiscal federalism.
- The recent experience of tackling Covid crisis is a successful example of how Centre and States have worked together to fight the pandemic. Likewise, steps have also been taken for localisation of Sustainable Development Goals so as to identify specific steps at the subnational levels.
- New reforms are required in public financial management system both at Centre and State level.
- There must be mechanisms in place to reward best performers, be it States or districts or even at block levels.
- Two-way communication channels need to remain open all the time so that the issues get resolved quickly and development is not hampered. Only then the vision of a developed India can be realised in its truest sense.

## **G. Public Health Innovation**

Amidst the ongoing challenges of mitigating the pandemic, one thing has become clear — the need for affordable and accessible health care for all. The idea behind ‘Health for All’ is intrinsically interlinked with the idea of Universal Health Coverage (UHC) which envisages, that everyone, everywhere, has access to essential health care services without facing financial hardship. SDG 3 aspires to ensure health and well-being for all, along with tackling epidemics and selected communicable diseases by 2030. It also aims to achieve universal health coverage and provide access to safe and effective medicines and vaccines for all.

Public health, i.e., the science of keeping communities healthy through the prevention of disease and promotion of health and wellness, has historically been a low priority in India. Of the total current expenditure on health classified by healthcare functions, preventive care accounts for 6.7 per cent. The money spent on curing people on the other hand is 51 per cent of the expenditure<sup>1</sup> with the remaining money being spent on pharmaceuticals, other medical goods and patient transportation.

**Objectives:** To revamp radically the public and preventive health system in the nation through the following strategic interventions

- Mobilize public health action through an integrated, inter-sectoral and pan-stakeholder approach, targeted at communities and individuals as well as grassroots organizations, aimed at creating an unprecedented people-led movement for health and wellness.
- Operationalize vital enablers - a) public health and management cadre, b) public health agency with capacitated supporting institutions (c) municipalities and panchayati raj institutions.

### Constraints

- Diseases need to be prevented first, a concept that has historically been inadequately acknowledged in India. The large burden of NCDs requires lifestyle and community-level interventions. Ensuring people eat right, sleep right, maintain good hygiene, exercise, and adopt a healthy lifestyle necessitates concerted interventions at various levels of the system.
- In most states, population health management positions are staffed by doctors, trained primarily in the provision of curative services, or by generalist civil servants. They have limited public health training, which includes an understanding of the causes and linkages between risk factors and diseases as well as disciplines including epidemiology, biostatistics, social and behavioural sciences and management of health services. Likewise, hospitals are run by clinicians with little expertise in managing health facilities.
- The following preventable risk factors are causes for a major proportion of diseases in the country: maternal and child malnutrition, air pollution, unhealthy diets, high blood pressure, high blood glucose, tobacco consumption, unsafe water, and poor sanitary practices; of these, nutrition, environment, water and sanitation are outside the purview of the health ministry. Therefore, accountability for ensuring vital public health actions is spread thin.
- There is no single authority responsible for public health that is legally empowered to enforce compliance from other public authorities and citizens, even though several factors may require inter-sectoral action to achieve a measurable impact on population health.

### Steps taken By Government

- Government of India in 2018 introduced the **Ayushman Bharat programme**, with the aim to bolster the two pillars of Health for All - **strengthening primary health care** and **providing health coverage**.
- Under this programme, **1.5 lakh health and wellness centres** are being set up to provide comprehensive primary health care to the community, including providing essential drugs and diagnostic services free of cost.
- Additionally, the programme also **provides health coverage for the bottom 40%** of people in the country, who are most likely to face financial hardships while accessing quality health care services.
- Numerous programmes have been designed to address health issues under the wider umbrella of **National Health Mission**.
- The **Universal Immunisation Programme**, which is one of the largest health programmes of the world, has achieved stellar results such as the eradication of smallpox and polio.
- Moreover, Various National programs on health ranging from **Reproductive, Maternal, Neonatal, Child and Adolescent health (RMNCAH)**, nutritional programmes, communicable and non-communicable diseases to health system strengthening programs have been designed and implemented.

- Prime Minister gave a clarion call to end TB and Malaria by 2025 and 2030 respectively and launched the National Strategic Plans (NSP) to this end.

### Way Forward

#### 1. Mobilize public health action at multiple levels

- Public funding on health should be increased to at least 2.5 per cent of GDP as envisaged in the National Health Policy, 2017.
  - Create an environment, through appropriate policy measures, that encourages healthy choices and behaviours:
  - Make the practice of yoga a regular activity in all schools through certified instructors.
  - Increase taxes on tobacco, alcohol and unhealthy foods such as soda and sugar sweetened beverages.
  - Co-locate AYUSH services in at least 50 per cent of primary health centres, 70 per cent of community health centres and 100 per cent of district hospitals by 2022-23.
- Strengthen the Village Health Sanitation and Nutrition Day platform to cover a broader set of health issues across various population groups instead of only focusing on child health.
- Activate multiple channels (schools, colleges, women's groups, traditional events like fairs, social media platforms, National Cadet Corps etc.) and prepare communication materials for catalysing behavioural change towards greater recognition of preventive health care.
  - Make nutrition, water and sanitation part of the core functions of panchayati raj institutions and municipalities.

#### 2. Institute a public health and management cadre in states: Incentivize state governments to invest in creating a dedicated cadre for public health at the state, district and block levels:

- Characteristics of the cadre
  - Train officials in public health related disciplines including epidemiology, biostatistics, demography and social and behavioural sciences.
  - Provide training in hospital management to suitably equip personnel responsible for managing large facilities.
  - Create a career pathway up to the highest levels within the state health departments for those trained in public health, as well as for those with clinical specialties.
  - Allow mid-level providers responsible for managing health and wellness centres delivering comprehensive primary healthcare to rise to higher-level positions within the cadre. Similarly, allow public health functionaries at the block and district levels to enter the cadre.
  - Mandate a master's level qualification, in addition to specified training, for officials taking on leadership positions.
- Institutional mechanisms
  - Develop a model public health and management cadre by drawing upon best practices and engage with states to adapt, refine and institutionalize the model.
  - Formulate guidelines to create the cadre, primarily by re-aligning the requisite skill sets of existing functionaries with service conditions.

#### 3. Create a focal point for public health at the central level with state counterparts

- Create a designated and autonomous focal agency with the required capacities and linkages to perform the functions of disease surveillance, information gathering on the health impact of policies of key non-health departments, maintenance of national health statistics, enforcement of public health regulations, and dissemination of information to the public. An appropriately

empowered and capacitated National Centre for Disease Control may be considered to play this role with support from relevant organizations.

- Create a counterpart Public Health Agency in each state, where they do not already exist.

#### 4. Other measures

- Explore the need for a Public Health Act to legislatively empower and, if necessary, institutionalise the Public Health Agency discussed above.
- Redefine the role of the technical directorate (Directorate General of Health Services) and create a Directorate of Public Health.
- Develop a comprehensive MIS including baseline data for NCDs

### H. Infrastructure Development

We have come a long way in provisioning of infrastructure since Independence. In many domains, we have made the visioning of what needs to be done a better combination of top down and bottom up, with more decision making at decentralised levels rather than just top down (based on the concept of Five-Year Plans).

For an emerging economy like India, with more than a billion people, infrastructure, which provides essential services, also reflects reliability, assurance, low-cost production, and market competitiveness. Public investment in the nation's infrastructure has been insufficient to develop the foundation for long-term growth. Considering that infrastructure development require huge upfront investments, the Government has embarked on a policy of promoting Public Private Partnership (PPP) as a means of augmenting investment in infrastructure.

The recently announced **National Infrastructure Pipeline (NIP)** by the **Ministry of Finance** envisages an investment of Rs 111 lakh crore in infrastructure in the six fiscal years until 2020-25.

- It is the **investment plan** unveiled by the Central Government for **enhancing infrastructure in identified sectors** for a period of five years from **2020-25**.
- \$1.4 trillion have been allotted to NIP.
- It will help India to become the **\$5 trillion economy** by 2025.
- The **funding** will be **jointly** made by the **Centre, states** and the **private sector** in the proportion of **39:39:22** ratio.

#### Eight Dimensions That Enable Infrastructure Development

##### 1. Project Structuring:

- To enable greater focus, and to facilitate PPPs, we had to **unbundle' activities**, either vertically or horizontally or both, and in some cases, even 'bundle.' The **power sector is a good example. Electricity Boards were vertically unbundled** into Generation, Transmission and Distribution Companies. **Distribution Companies further got horizontally unbundled, on a regional basis.**
- **To enable 'inclusion,'** especially where affordability for some user segments was an issue, many sectors have come up with a structuring that recognises the need for subsidy.



- The **telecom sector** created a **Universal Obligation Fund**, by sourcing a percentage of commercially viable calls into this fund, from which subsidies would be provided for the rural and remote segments.
- **Aviation** tried to do it by having a **cross-subsidy model**, forcing every airline to follow 'route dispersal guidelines. This did not work very well, **until the "under-served" routes were bid out as a separate package, with bids going on least subsidy basis.**
- The real question is, if subsidy-based bids are allowed, and the discovery is through a competitive process, whether the public sector would have been able to offer as much output with the 'subsidy' amount, as the private sector can leverage and offer.
- **In the road sector**, initial PPP Structuring was attempted on the **Build-Operate-Transfer model**. When projects were not taking off, a **capital subsidy-based bid model** was structured, called **Viability Gap Funding**. This made the road sector take off.
- But then, as more and more projects started getting **vulnerable to toll revenue-based risk**, a structuring called **Hybrid Annuity Model** was brought in, where the concessionaire was no longer vulnerable to toll- based revenue risks, but had to build (and hence take on construction risks) and maintain the roads for an annuity income.
- Dealing with competition has been handled differently in different sectors. **Airports have protected the market for a developer**, by giving the first right of refusal, should another airport be planned in a 150 km vicinity.
- On the other hand, **terminals at ports** are bid out in a manner that there is competition from at least two private players for a terminal category.

**2. Project Evaluation: Economic and Risks:** Projects have moved from being evaluated just financially - often without a revenue model, to economic evaluation with externalities (also called social cost benefit analysis) to evaluations that include identification of risks and risk mitigation/management plans.

**3. Sourcing of Funds:** Starting from just budgetary support, to private funding, to revenue models, to partial government support through viability grants, various sources of funding have come to play.

#### **4. Tendering and Bidding Process:**

- The bidding process is also more consultative, and manages expectations. The currently ongoing privatisation of certain Passenger Train Operations is an example of openness, transparency and responsiveness.
- Bid criteria have evolved over time to get better alignment between the promoter and project expectation, as well better risk allocation, transparency and monitorability.
- Ports moved from royalty to revenue share, to enable better risk allocation. Airports have moved from revenue share to per passenger fee, to enable better monitoring.
- Roads have moved from concession period to viability gap funding/lump sum payments to revenue share to annuity receipts.

**5. Agreements:** This is a critical area, which binds (and regulates) the relationship between the authority and concessionaire.

**6. Project Management:** While greater professionalism and technologies have come in, vulnerability to land acquisition and environmental clearances have affected this.

**7. Post-Project Issues: Post-project ownership** is an important issue, where the original goals of competition or conflict of interest need to be considered, while at the same time providing a healthy

platform for buy and sell of concessions.

### 8. Regulation and Dispute Resolution

- Many regulatory institutions have been set up - The Telecom Regulatory Authority of India, the Central and State Electricity Regulatory Commissions, Tariff Authority for Major Ports, and Airport Economic Regulatory Authority.
- There is also an **Appellate for each regulator**, so that appeals against any regulator's act can be heard & resolved. And then there is judiciary. However, not all aspects & sectors are covered.
- There are **still under-regulated areas like Railways and Road Safety**. Ideally, a regulator should be empowered sufficiently, that they can be proactive in formulating regulations, of course through a transparent process.
- Many projects have got stalled, primarily due to disputes. Land acquisition and Environmental Clearances are major reasons.
- Inflexibilities in Concession Agreements have often made negotiating on the table worthless, with the only recourse being courts.

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### **Payment Infrastructure Development Fund (PIDF) scheme**

The RBI recently announced the operationalisation of the payment infrastructure development fund (PIDF) scheme.

#### **Key takeaways**

- Objective: To subsidise deployment of payment acceptance infrastructure in tier-3 to tier-6 cities, with a special focus on the north-eastern states of the country.
- An advisory council (AC) under the chairmanship of RBI deputy governor BP Kanungo has been constituted for managing the PIDF.
- The fund will be operational for three years effective from January 1, 2021 and may be extended for two more years.
- The implementation of targets shall be monitored by the RBI with assistance from card networks, the Indian Banks' Association (IBA) and the Payments Council of India (PCI).

#### **Do you know?**

- The PIDF presently has a corpus of Rs 345 crore, with Rs 250 crore contributed by the RBI and Rs 95 crore by the major authorised card networks in the country.
- The authorised card networks shall contribute in all Rs 100 crore.
- The card issuing banks shall also contribute to the corpus based on the card issuance volume.
- Besides, the PIDF shall also receive annual contributions from card networks and card issuing banks.

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### **Comprehensive policy framework for climate- resilient infrastructure**

1. India's development policies do not lay any explicit focus on effective integration of climate resilience concerns in infrastructure building.
2. A comprehensive policy framework for climate resilient infrastructure could significantly reduce the socio-economic vulnerabilities by anticipating, preparing for, and adapting to changing climate conditions.
3. An aggressive strategy to integrate climate resilience in all aspects of infrastructure development from planning, design, construction, operation and maintenance.

4. India's critical infrastructure must be built to withstand, respond to, and recover rapidly from the disruptions they cause.
5. The national government's flagship schemes for infrastructure development such as the AMRUT, the Smart Cities Mission, or Pradhan Mantri Aawas Yojna (PMAY) should put greater emphasis on climate resilient standards adoption.
6. National Action Plan for Climate Change (NAPCC) mandates local governments to include climate adaptation and mitigation strategies into their development projects. This has to be implemented in spirit at ground level
7. Adherence to the provisions of The Model Building Bye-laws 2016 that provides for risk classification of buildings and climate-resilient construction
8. Majority of states do not maintain an up-to-date record of critical infrastructure such as housing, water systems, transport network, etc. that could inform proper land use planning. States should update such data with urgency
9. There is a need to strengthen the technical capacity for climate modelling and projection.
10. India should collectively mobilise its existing institutional climate capabilities for predicting disasters. This would include ISRO, NRSA and IMD to create comprehensive map that could guide the design, plan and delivery on resilient infrastructure building.

### **Importance of climate resilient infrastructure**

- Investing in climate resilient infrastructure at an unprecedented scale would yield the triple dividend of
  - Saving lives and livelihoods,
  - Minimising economic loss and
  - Ensuring efficient allocation of resources for development

### **Conclusion**

PPPs and ability to think of commercialising infrastructure have provided a new platform for developing infrastructure.

- The idea of balanced risk allocation (allocate risks to the party which can bear it best) has gained traction. Concession Agreements have yet to mature by providing trigger-based review mechanisms.
- Conflicts of interest have been recognised: policy maker versus regulator, regulator versus operator, policy maker versus operator, level playing field with a strong incumbent, though need to be addressed.
- A potential conflict of interest arises where an 'authority' has been allowed to bid for new 'PPP' projects, the specific instance being the Airports Authority of India (AAI) bidding for airports. AAI is not only an 'authority' in airports, but also an operator, and a monopoly service provider of air traffic control.
- The project structuring, risk allocation and regulatory outlook are still vulnerable to crony capitalism. But transparency, mature media attention and regulatory oversight can address this

## I. Paris Agreement

### What is Paris Agreement?

- Objective: It is a multilateral agreement within the United Nations Framework Convention on Climate Change (UNFCCC); signed to reduce, mitigate greenhouse-gas-emissions.
- Temperature Targets: To slow the process of global warming by limiting a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius.
- Emission Goals: Another crucial point in this agreement was attaining “net zero emissions” between 2050 and 2100. Nations have pledged “to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century”.
- Burden Sharing: Developed countries were also told to provide financial resources to help developing countries in dealing with climate change and for adaptation measures. Other countries are invited to provide support on voluntary basis.
- Non-binding Voluntary Targets: The Paris Agreement requires that all countries — rich, poor, developed, and developing — slash greenhouse gas emissions. Nations voluntarily set their emissions targets and incur no penalties for falling short of their targets.
- Review Mechanism: A review every five years with first mandatory world review at 2025. Each review will show an improvement compared with the previous period.
- Climate-related loss: The agreement also includes a mechanism to address financial losses faced by less developed nations due to climate change impacts like droughts, floods etc. However, developed nations won't face financial claims since it “does not involve or provide a basis for any liability or compensation”.

### What is Nationally Determined Contributions (NDC)?

- It means the contributions that need to be done by each country to achieve the overall global goal.
- The contributions need to be reported every 5 years to UNFCCC.
- The contributions are not legally binding.
- The goal is to make sure that all countries have access to technical expertise and financial capability to meet the climate challenges.

### Long-Term Strategies

- To better frame the efforts towards the long-term goal, the Paris Agreement invites countries to formulate and submit long-term low greenhouse gas emission development Strategies (LTLEDS).
- LT-LEDS provide the long-term horizon to the NDCs. Unlike NDCs, they are not mandatory.

### Tracking Progress - Global Stocktake explainer

- With the Paris Agreement, countries established an enhanced transparency framework (ETF). Under ETF, starting in 2024, countries will report transparently on actions taken and progress in climate change mitigation, adaptation measures and support provided or received.
- It also provides for international procedures for the review of the submitted reports. The information gathered through the ETF will feed into the Global stocktake which will assess the collective progress towards the long-term climate goals

### **What Is Achieved So Far?**

- Although climate change action needs to be massively increased to achieve the goals of the Paris Agreement, the years since its entry into force have already sparked low-carbon solutions and new markets.
- Zero-carbon solutions are becoming competitive across economic sectors representing 25% of emissions. This trend is most noticeable in the power and transport sectors and has created many new business opportunities for early movers.
- By 2030, zero-carbon solutions could be competitive in sectors representing over 70% of global emissions.

### **How is Paris Climate different from Kyoto Protocol?**

- In the Kyoto Protocol, there was a differentiation between developed and developing countries which were mentioned as Annex 1 countries and non-Annex 1 countries respectively.
- However, in the Paris agreement, there is no difference between developing and developed countries.

### **Financial Support pledged during the Paris 2015 Agreement**

- Developed countries have committed \$ 100 Billion a year.
- Finance would be balanced between mitigation and adaptation.
- G7 countries announced the US \$ 420 Million for Climate Risk Insurance and the launching of the Climate Risk and Early Warning Systems (CREWS) initiative.
- \$ 3 Billion commitment for Green Climate Fund.

### **India's Greenhouse gas emissions**

- India's GHG emissions accounted for 6.5% of 2014 global total, according to data from the World Resources Institute. This made the country the fourth-largest emitter after China, the United States and the European Union.
- Per capita, India's emission from fossil fuels (in 2017) is by far the lowest among major economies:
  - India: 1.83 MT carbon dioxide (CO<sub>2</sub>)
  - China: 7.72 MT in China
  - The EU: 6.97 MT
  - The US: 15.74 MT

### **What are India's Climate commitments?**

In 2015, ahead of the UN significant climate conference in Paris, India announced three major voluntary commitments called the Nationally Determined Contributions (NDC):

1. Improving the emissions intensity of its GDP by 33–35% by 2030 over 2005 levels
2. Increasing the share of non-fossil fuels-based electricity to 40% by 2030.
3. Enhancing its forest cover, thereby absorbing 2.5 to 3 billion tonnes of carbon dioxide

### **India's progress in fulfilling its Climate Commitments**

- India has reduced emission intensity by 21% over 2005 levels.
- Solar capacity has grown from 2.63 GigaWatts in 2014 to 36 GigaWatts in 2020.
- Renewable energy capacity is the fourth largest in the world and will reach 175 GigaWatts before 2022.
- India has also set new target of 450 GigaWatts of renewable energy capacity by 2030.
- On the world stage, India has pioneered two major initiatives: (1) The International Solar Alliance; (2) Coalition for Disaster Resilient Infrastructure.

- The Emissions Gap Report 2020 of the UNEP includes India among nine G20 members who are on track to achieve their unconditional commitments under the Paris pact, based on pre-COVID-19 projections.
- The *Climate Action Tracker* website has rated its climate efforts as “2-degree compatible” — that can contribute to limiting warming by the end of the century to 2° Celsius; making India the only major economy to be so highly rated.

### **AIPA of India**

- MoEFCC has constituted a high-level inter-ministerial Apex Committee for Implementation of Paris Agreement (AIPA) under the chairmanship of Secretary, MoEFCC.
- The purpose of AIPA is to generate a coordinated response on climate change matters that ensures India is on track towards meeting its obligations under the Paris Agreement including its Nationally Determined Contributions (NDC).
- AIPA will oversee the progress in implementation of India’s NDC and receive periodic information updates to monitor, review and revisit climate goals to fulfil the requirements of the Paris Agreement.
- Another key function of AIPA would be to operate as a National Authority to regulate carbon markets in India, issue guidelines on carbon pricing, market mechanism, and other similar instruments that have a bearing on climate change and NDCs.
- The year 2021 would mark the beginning of implementation of the Paris Agreement and constitution of AIPA is central to strengthening the national systems and institutional arrangements for implementation and monitoring of climate actions

### **How has COVID-19 Pandemic impacted the Climate Commitments?**

- The brief reduction in global GHG emissions brought about by the pandemic has given all countries an opportunity to review their development trajectories.
- The unprecedented event has enabled them to deploy an extraordinary fiscal stimulus for rehabilitation of economies — estimated at \$12 trillion globally — making green growth a possibility.
- India faces a particular challenge, in moving its pandemic rehabilitation spending away from traditional brown sector policies aligned with fossil fuel use to green territory.

### **Challenges with India’s path ahead**

#### **1. Issues with afforestation and Carbon sink**

- At the recent summit, Mr. Modi took credit for expansion of forests, which, according to the national pledge under the Paris Agreement, will serve as a carbon sink of 2.5 bn to 3 bn tonnes of carbon dioxide equivalent by 2030.
- This is a key goal, given that it has multiple benefits, protecting biodiversity, influencing the climate system and providing resources for communities.
- But it is fraught with uncertainty. The Centre has questioned the veracity of State afforestation data and said only a fourth of the claims they made were deemed credible.
- Clearly, without a cohesive policy on verifiable afforestation, the carbon sink approach may yield poor dividends, with questions hanging over the spending.

#### **2. Issue with Renewable energy additions and emissions**

- Achieving 100 gigawatts of solar power capacity within the overall renewables goal, from 36 GW now, needs a steep scale-up that must actively promote rooftop solar installations.
- There is little evidence that this is a high priority for most States.



## YK GIST – JANUARY 2021 I IASBABA

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- Transport-related emissions, which are a major component of the whole, have risen sharply in the unlock phase of the pandemic as people prefer personal vehicles, but the issue received little support from States which failed to reorder cities for cycling and pedestrianisation.
- Large-scale agriculture insurance against climate disasters also needs attention

In the year that remains before countries meet at the UN Climate Change conference in Glasgow in 2021, India needs to focus on future emissions and plan green investments that qualify for global climate funding.

### USA's new President restores America's participation in Paris Climate Agreement

#### Key takeaways

- America's return will take effect on February 19.
- USA has promised enforcement mechanism to achieve net-zero emissions no later than 2050, including a target no later than the end of his term in 2025, aided by a planned federal investment that will total \$1.7 trillion over ten years, besides private investments.
- The plan revolves around 10 million well-paying clean energy jobs with a focus on solar and wind power.
- This year's UN climate conference in Glasgow will see the new administration engaging UNFCCC member-nations to raise global ambition.

#### Do you know?

- The withdrawal from the Paris Agreement meant that the U.S. was no longer bound by its national pledge made under the pact: to achieve an economy-wide reduction of its GHG emissions by 26%-28% below the 2005 level in 2025.
- America also stopped its contribution to the UN's Green Climate Fund, to which it had pledged \$3 billion, after transferring an estimated \$1 billion.
- In the past, the U.S., under George W. Bush, had pulled out of the previous pact, the Kyoto Protocol, in 2001.

### INDIAN ART & CULTURE

**Pingala**, an ancient medieval Indian mathematician, in his treatise **Chandah-sastra** had given the **matrameru**, now known as the **Fibonacci numbers**. The same was later explained by a Jain philosopher **Hemachandra** and then by an Italian mathematician **Leonardo Fibonacci**, after whom they are named today. The Fibonacci sequence starts with numbers 0 and 1, and every new number in the sequence is the sum of the two numbers just before it. 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, .... and so on. The ratio of any two consecutive numbers is always 1.618 shown by the Greek letter phi.

#### **Music and Dance**

- The **Moghuls** introduced new instruments to India like the **khamanche**, **rabab** (which we know as the sarod today), **ek-tar**, **du-tar**, **se-tar** (3 strings), which we know as the **sitar** today in its modified version.
- North Indian classical music got more deeply influenced by khayal, qawwali, zikir-zari, sufi and folk.
- **Thumri** was added in the **Kathak** repertoire by **Nawab Wajid Ali Shah of Awadh**.
- Every state in India has a folk music or dance form with its own local deity, language, dialect,

costume, intention. Garba in Gujarat, Ghoomar in Rajasthan, Bihu in Assam, Santhal in West Bengal, Bhangra in Punjab and so on.

**Folk Paintings** - *Warli painting* from Maharashtra, *Madhubani painting* from Bihar, *Gond painting* from Madhya Pradesh. Some paintings tell religious stories on cloth like *Pichhwai*, or *Phad* from Rajasthan, *Mata-ni-pachedi* from Gujarat, *Kalamkari* painting from Andhra Pradesh, *Thangka* painting from the Himalayan region.

### Architecture:

- In ancient India, temples were architectural wonders. The *Meenakshi Amman Temple* in Madurai has one thousand pillars in perfect alignment. The *Rameswaram Temple* in Tamil Nadu has 1212 pillars on either side of a corridor that in one dot.
- Dry frescoes in the *Ajanta caves* near Aurangabad, Maharashtra show stories from the Jataka tales.
- The *Belur-Halebidu temples* built by the Hoysala kings in Karnataka have fine stone sculptures that clearly show a hair pin in a woman's ornate bun or the folds of her clothes or a hole in the flute being played by Krishna.
- *Ranakpur Jain temple* in Rajasthan has intricate carvings in white marble, there are the finest sculptures in the *Jain Dilwara Temples*, or *Khajuraho temple* in Madhya Pradesh; *Mahabodhi Temple Complex* in Bodh Gaya, Bihar has fine brick work, *Brihadeeswara temple* in Thanjavur has sculptures of dancers showing 81 of the 108 karanas of Bharatanatyam as mentioned in the *Natya Shastra* by Bharata Muni.
- The *Gol Gumbaz* in Vijayapura, Karnataka made by Adil Shah has one of the largest domes built at that time and the Whispering Gallery which picks up the lightest sound made on one side heard by people standing far away on the other side.
- Europeans brought with them the Gothic style of architecture seen in the domes of the *Chhatrapati Shivaji Terminus*, Mumbai or the *Victoria Memorial* in Kolkata, West Bengal.

Today, India has a variety of architectural styles and **38 UNESCO World Heritage Sites**.

### MUST READ: AGRICULTURE

1. [Agricultural Distress](#)
2. [In agri-credit, small farmers are still outside the fence](#)
3. [Making agricultural market reforms successful](#)

## Perspectives on Rural Development

### A. Budget 2021

- The operation green scheme will cover 22 more perishable commodities while announcing the development of five major fishing hubs.
- 1,000 more mandis will be integrated with the electronic national market and the agriculture infrastructure fund would be made available to APMCs to augment infrastructure facilities.
- The agriculture infrastructure fund outlay will be increased to ₹ 40,000 crore, and micro-irrigation corpus will be doubled to ₹ 10,000 crore
- The Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) has been allocated Rs. 73,000 crore for FY22 which is lower than the revised estimates of FY21 which stood at Rs 1,11,500 crore.
- The proportion of funds allocated for rural development has decreased by 0.7% points. The total allocation for rural development is Rs. 1,94,633 crore for FY22.
- The government has also enhanced the agricultural credit target to Rs 16.5 lakh crore in FY22.
- The Micro Irrigation Fund, with a corpus of Rs 5,000 crore, created under National Bank for Agriculture and Rural Development (NABARD) would be doubled, augmenting it by an additional Rs 5,000 crore.
- Rural Infrastructure Development Fund Increased To ₹ 40,000

### B. Rural Revitalisation

India is aiming to become a \$5-trillion economy by 2024-25. To get there, India needs to grow at 9% per year in real terms from FY20 to FY25. Atmanirbhar Bharat is also one of our aims. Rural revitalisation is a promising area for achieving the twin objectives of becoming a \$5-trillion economy as well as Atmanirbhar Bharat. Rural economy contributes 25-30% to the GDP. Traditionally, agriculture used to be the main source of income and employment in rural areas, but that place is being taken by the non-farm sector. Rural revitalisation requires a transformative approach that envisions making rural areas a better place to live and work.

#### *Five areas that can help in revitalizing Rural Areas*

1. The role of agriculture will continue to be important for achieving **food security, increasing income and generating employment opportunities**. However, we need to ensure that we promote a **modern agriculture that is driven by technology and markets**.
2. Growth in rural areas should be driven by **agro-based industrialisation**, which may gradually shift to the non-farm sector. It will require investment in post-harvest rural activities, such as agro-processing, packaging, cold chains, cold storage and transport. It will also require creating an **enabling and favourable regulatory environment** to stimulate private sector investment in rural areas. The latest agri-laws and public investments in terms of the Agriculture Infrastructure Fund are welcome steps. This calls for creating clusters for specific commodities and developing appropriate supply chains. We propose to develop **agro-based 'special economic zones'** in rural areas to leverage economies of scale and increase income and employment opportunities.
3. **A strong linkage between farm and non-farm sectors** needs to be developed for augmenting income and creating jobs in rural areas. **Farm-sector driven industrialisation** may be evolved

from production to processing and marketing. Such a linkage will help the farm sector to produce market-driven commodities, reduce transportation costs, receive remunerative prices at farm gate, and minimise farm waste. Amul is an excellent example of farm-led processing, branding and marketing of milk for various dairy products. Such a model should be replicated for other agricultural commodities in different parts of the country. Collectivising farmers through FPOs or farmer interest groups would also offset scale disadvantages for small and marginal farmers and raise bargaining powers to enhance their incomes.

4. **The role of MSMEs will be very critical in developing rural industrialisation.** Their share in national gross value added is about 32%. They provide employment to about 111 million workers. The share of MSME-related products in exports was about 48% during 2018-19. The government is gearing to increase their contribution in the gross value added to 50%, and in exports to 75%. It projects to generate jobs for about 150 million workers. Such overwhelming targets will require huge investment to create necessary infrastructure; effective institutions for enabling MSMEs to have access to technologies, finance and markets; and vocational education and skill development in manufacturing and business planning.
5. **The role of rural-urban linkages will be a key driver in rural transformation.** Strengthening rural-urban linkages, from farms to small towns to megacities, will benefit rural labour, production, distribution, markets, services, consumption and environmental sustainability. New market opportunities created by growing urban areas and new technologies will promote local, regional and global value chains.

### Key factors that can enable this:

1. Need to go back to the concept given by former **President APJ Abdul Kalam, i.e. Provision of Urban Amenities in Rural Areas (PURA)**. It calls for urban infrastructure and services to be developed in rural hubs to create economic opportunities outside of urban areas. These include better road network, education, health, drinking water, power, sanitation and social safety net. These are measurably poor in rural areas compared to urban areas. An IFPRI study on prioritisation of investment opportunities also suggested that investment in education and health in rural areas significantly contribute in reducing poverty and increasing agricultural growth.
2. **Create an enabling business environment** by simplifying regulatory requirements, and reforming land and labour laws. The government has launched initiatives such as Make in India, Start-Up India, MUDRA Bank, Skill India, etc. We need to identify areas for developing rural hubs based on resources, markets and infrastructure. Cooperation of state governments in implementation will be important.
3. **The private player can play an important role in rural industrialisation.** The role of the government should be creating an enabling business environment—road, rail, air and water infrastructure; assured power supply; simplifying tax compliance; single-window clearance for construction and starting a business; easy access to credit; and stable policies. The private sector will invest where business environment is more favourable. Often, these will be either in cities or nearby cities. The private sector may not come forward in underdeveloped and marginal areas. The government may offer incentives in these areas, and launch programmes under PPP mode. In such areas, several promising projects may not be viable due to lack of basic facilities and infrastructure. In such cases, key components may be identified for meeting the ‘viability gaps’ through government funding. Tax holidays to incentivise private sector investment in underdeveloped and marginal areas will also help.

4. **There is a need to harness the power of ICT.** It offers tools for improving access to technologies, services and finance. ICT tools also can lead to effective governance, monitoring and programme implementation. Tech start-ups may play a meaningful role in bridging the digital gap.
5. **Lack of coordination, weak governance and poor implementation of various schemes** has meant we have failed to realise their expected outcomes and impact. Ground-level problems could be addressed by delegating the policy decisions to decentralised governance units and institutions.

### C. Rural Administration

The government has taken a long overdue measure by combining the Ministries of Agriculture and Farmers Welfare, Rural Development and Panchayati Raj under the same minister. This will enhance convergence between programmes related to food, nutrition and livelihoods security of millions of rural households. It is a step in the right direction.

Convergence were initiated in 2008-09 with the ministries of agriculture, water resources, land resources, environment and forests. This was to enhance the durability and productivity of the assets created under MGNREGA. Over the years, linkages have been forged with central programmes on food security, horticulture, agro-forestry, rural livelihoods, animal husbandry, fisheries, and state schemes such as Kapildhara, Sahastradhara, Bhumi Shilp and Vanya in Madhya Pradesh.

**If the challenge of doubling farmers' incomes by 2022-23** has to be met, it needs to be emphasised that **agriculture is a multi-dimensional enterprise.** The sector is rapidly undergoing structural transformation, influenced by several factors. No longer limited to a commodity production system, the agriculture sector now embraces post-production activities like markets and value-chains in a holistic agri-food system. Simultaneously, farmer welfare, building resilience of vulnerable communities, rejuvenating natural resources, addressing climate change must be kept centrestage.

**The complexities of handling an agri-food system** can be gauged by the processes involved: Sustainable management of soil, water, biodiversity, climate change; input supplies such as seeds, fertilisers, plant protection, farm-machinery, irrigation, credit, insurance, extension; conservation production and agronomic practices such as soil-testing, zero-tillage, water and nutrient use efficiency; post-harvest activities in drying, sorting, grading, warehousing, cold-storages; marketing, related to village markets, mandis, contract farming, cooperatives, farmer associations, e-NAM, private markets, supermarkets; agro-processing linked to milling, preservation of perishables, transportation, supply-chain management; retailing, branding, labeling, certification of organics, bio-fortification; services for farmers' welfare such as pensions, insurance, health coverage; rural infrastructure; and rural non-farm income generation.

**This requires convergence between not just two or three ministries but across at least 15 ministries bearing on agriculture and farmers.** Presently the linkages between agriculture and agriculture-related non-production activities are weak. The missing links limit efficiencies accruing from coordination between agriculture, development and sustainability. There is a disconnection between agriculture and the sectors dealing with agro-processing, environmental services, natural resources, rural non-farm livelihoods and urban and peri-urban activities.

The implementing agencies while spending their annual budgets and individually achieving their limited goals, are unable to make the desired impact on the collective outcome. Bringing agriculture and rural development under one minister is an important step but not enough. On the other hand, it is not feasible to place multiple ministries under a single minister. **Overarching mechanisms and capacities need to be built that catalyse convergence between various agencies at all levels.**

At the state level, the institution of agriculture production commissioner (APC) was created to coordinate between relevant departments. In the context of the holistic agri-food systems approach, going beyond commodity production, the APC needs to be reviewed so as to be aligned with the emerging realities. The district level agriculture technology management agency also requires restructuring that factors in markets and supply chains. Coordination is required between different implementing agencies, notably the district rural development agencies, krishi vigyan kendras, fish farmers development agencies, farmer producer organisations and private sector agri-service providers. The capacities of the panchayati raj institutions need to be re-oriented.

The government may consider constituting a cabinet committee on agriculture and rural rejuvenation. The target of doubling farmer incomes by 2022-23 is more likely to be achieved if a significant proportion of that income accrues from rural non-farm activities. There is much potential for employment generation in the holistic agri-food system. A separate agriculture budget taking into account the complementarities of agriculture-related components in various schemes will be a robust framework for an integrated approach.

The Niti Aayog's task force for structural agricultural reforms will know that while the central government can propel the nature and scope of agricultural transformation through its policy and programmes, **the primary responsibility for agriculture development rests with the state governments.** Partial remedies will not suffice. Comprehensive long-term measures are needed.

### **D. Developing a "cillage" ecosystem**

*Developing a "cillage" ecosystem would need a rooted and integrated approach to holistic education and research, technology development and management, as well as technology-enabled rural livelihood enhancement.*

The tendency to migrate to urban areas has been a natural consequence of better opportunities that got created there — in contrast to life in rural areas becoming increasingly unsustainable. While there may be several drivers of this situation, the industrial-era dynamics that led to centralisation in support of mass production or massive scale up was clearly a major one. This, in turn, also led to concentration of higher education/capacity building processes to urban centres where there was job growth, quite to the detriment of the much larger rural domain where significant wisdom did exist.

While many countries which created new systems and technologies in the industrial era climbed up the power ladder, India's importance grew primarily because of her demographic dividend and the large market that her people constituted. Rural India suffered severe neglect in the process, probably as a result of poor job opportunities there and education having lost its role as an enabler of local development. The Anand dairy revolution and sugar co-operatives were exceptions driven by a few visionaries where livelihood enhancement needs inspired development, which in turn pulled in education — in whatever form it could be leveraged — to rural areas. Slowly, the country is learning to



create systems and technologies to address her needs. However, the exercise is, by and large, urban-centric.

We are now in the knowledge era. And knowledge-era technologies, in contrast to industrial-era technologies, promote democratisation (social media, for example) and facilitate decentralisation (work from home). It should thus be possible for an adequately educated and trained youth residing in a rural domain to support a significant part of the manufacturing and service needs of urban areas, just as an urban youth can support a significant part of the knowledge and application needs in rural areas. With technologies like additive manufacture, internet of things, and artificial intelligence, well-trained people can address needs in both urban and rural areas from wherever they are. Thus, the knowledge era should, in principle, become a significant income leveller between the urban and rural domains, with a large rise in the overall national income. As we embrace the knowledge era and focus on capacity building of rural youth, the opportunities in rural areas should, in principle, become higher than those in urban areas since the rural segment can now benefit from all three (agriculture, manufacturing and services) sectors of the economy.

In the knowledge era, with emphasis on capability and capacity building of rural youth in terms of holistic education, appropriate technology and enhanced livelihood, there is a possibility for a more balanced distribution of income as well as population. This would, however, need knowledge bridges to be built between cities and villages, and the creation of an ecosystem which has been conceptualised as a “cillage” — a synergistic combination of city and village. One can safely surmise that bridging the knowledge gap between a city and a village would also bridge the income gap between the two, and lead to a faster bridging of the gap between the average individual income in India and that in industrially advanced countries. Democratisation promoted by knowledge technologies, if properly leveraged, can in principle reduce disparities, which, unfortunately, are on the rise today.

- Facilitating a number of new skills, technologies and support systems that can further leverage current capabilities of these people for starting a new enterprise would be important. Immediate arrangements to facilitate their livelihood, and leveraging their present capabilities could help retain at least some of these people in villages.
- It could trigger a faster movement towards an inevitable long-term equilibrium.
- Going forward, we should take knowledge activities to a higher level so that the products and services created by these people become more competitive.
- Looking at disruptive technologies for exploiting local opportunities should follow.

The disruption caused by the COVID-19 crisis, particularly in the context of loss of livelihoods at the base of the socio-economic pyramid, is bound to have a deep impact. It will need every effort to return to normal. Given that the new normal would, in any case, be quite different, the right course would be to channelise the stimulus caused by this crisis towards accelerating the shift to a new normal. This will not only help a more dispersed population, but will also reduce disparities and lead to faster growth of the economy.

### E. Panchayati Raj System towards Changing Rural India

Nearly 70 per cent of India's 1.3 billion population lives in rural areas. We have municipalities in the urban areas and panchayats in the rural areas. Good governance depends on the effective working of these local institutions. Therefore, the transformation of India depends on how well the panchayats function. In 2017, Prime Minister Narendra Modi said, "Panchayats are effective ways to fulfil the aspirations of people in rural India. They are playing a vital role in India's transformation." Since then, there has been a continuous and systematic effort to empower the panchayats with the necessary powers and provisions so that they work in an effective and transparent manner.

#### Devolution of Powers

The 73rd and 74th Constitutional Amendment Act 1993 envisaged the idea of Mahatma Gandhi's grassroot democratic institutions in the country. It transfers the representative democracy to participative democracy. However, the dark side of this revolutionary concept is the lack of devolution of powers to the local self-government.

#### **Reasons for failure due to half-hearted devolution of powers**

- 73rd and 74th Amendment providing voluntary provision to state governments in devolving powers and funds. Only 20/29 subjects on an average have been devolved by the state governments.
- Lack of adequate resources and funds. As much as 95% of a rural local government's budget relies on funds devolved from a higher level of government.
- Local government spending is only 2 percent of the GDP.
- Reluctance of state politicians to devolve much powers to the district level or below because of fear that if such local institutions acquired real powers they would become alternative source of influence and patronage. Even though States like Kerala, Tamil Nadu, Karnataka have done well in devolving the powers, states like Uttar Pradesh, Bihar are lagging behind.
- Even though State Finance Commissions have been established in all states, their recommendations are brushed aside and not implemented.
- PRIs also suffer from structural deficiencies i.e. no secretarial support and lower levels of technical knowledge which restricted the aggregation of bottom up planning.
- Lack of separate bureaucratic cadre for local self-government with expertise in local administration. For example, Karnataka has separate cadre.
- The state and central government have also started creating separate structures or units for implementing specific projects on education, health, and so on; this limits the role and powers of the PRIs.
- Institutional structures like the district planning boards, created to expedite decentralised planning, are either non-functional or do not give priority to PRIs.

**Tokenism and surrogate representation have severely constrained the efficacy of panchayati raj institutions (PRIs) as instruments of socio-economic transformation.** Issues like Tokenism and surrogate representation are hindering the socio-economic development process as below.

#### **Tokenism**

- Panchayats have not been granted enough powers for revenue generation. As a result, they only have limited functional autonomy. Even after 25 years of constitutional backing, the PRIs are able generated only 5 percent of their revenue.

- Elections are not held regularly. For example, in Tamil Nadu elections were not held for 3 years after the term ended.
- Devolution of power which is imperative for socio-economic development has not been addressed properly.
- Separate cadre for local administration should have been setup for effective implementation of policies and decision making.
- Even after a decade and a half after the PESA Act, there is very little awareness about the Gram Sabha being designated as a self-governing body or having legal jurisdiction over the natural resources and forests. Neither is there any support mechanism for the Gram Sabhas to play any significant role.
- Recommendations of State Finance Commissions (SFCs) are generally not taken seriously

### ***Surrogate representation***

- Twenty-five years after women were given 33% reservation in local self-governance bodies, many women sarpanchs remain faceless wives and daughters-in-law. Even Prime Minister Narendra Modi acknowledgement the fact that 'Sarpanch Pati' tradition should be ended.
- With the backing of national and state political parties, the object of direct and grassroot democracy gets defeated.
- The state and central government have also started creating separate structures or units for implementing specific projects on education, health, and so on; this limits the role and powers of the PRIs.

### **The attainment of Sustainable Development Goals (SDGs) require active participation of the panchayati raj institutions (PRIs).**

***Convergent implementation of schemes-*** Ensure effective implementation of flagship programmes pertaining to livelihood like National Rural Livelihood Mission, Mahatma Gandhi National Rural Employment Guarantee Scheme, Swachh Bharat Mission etc. Eg The Assam governments Samagra Gram Unnayan Yojana (CMSGUY) – a 5-year mission to initiate investment in rural areas towards doubling farmers' incomes

***Participatory outcome based planning for local development:*** Effective functioning of the Gram Sabha as participatory discussion and decision making forum for local development.

- Ensure coordinated functioning in tandem with Self Help Groups and their collectives
- Institute outcome based planning that sets baselines and monitors advancement in development indices.

### ***Specific governance interventions in panchayats***

- Effective functioning of Standing Committees and Functional Committees of the panchayats
- Strengthening fora for community participation
- Institution of clear community based monitoring and tracking mechanisms and information feedback to the community.

### ***Interventions across tiers of panchayats***

- Effect convergent planning between the three tiers of Panchayati Raj
- Effective functioning of the District Planning Committees which link rural and urban planning
- Coordination for service delivery and implementation of flagship schemes. Eg. The Government of Bihar's umbrella programme titled 7 Nischay (or 7 resolves) addresses challenges in multiple sectors following an inter-sectoral approach.

The gram panchayat and various committees must periodically assess all the services. Primary focus must be given to five key services:

- Anganwadi (Child care) as it has direct link with child development and curbing malnutrition
- Primary education – it has link with universal literacy particularly among girls
- Drinking water and sanitation – it has direct link with the health status and wellbeing
- Access to public health services – it will improve institutional delivery and healthy life
- Access to public distribution system and food availability in anganwadi and mid-day-meal – it will address malnutrition.

Panchayats in India can also help in building a nationalist perspective by restoring our cultural identity. They enjoy greater trust among people than any other government institution. Therefore, focussing on the panchayats would also enable us to ensure larger participation of people in governance which, in turn, will also revitalise the rural economy and make it self-sufficient. Today, we have more than 2,50,000 panchayats across India with nearly 3.1 million elected representatives and 1.3 million women representatives. Public participation, people-driven approach, powerful local bodies and panchayats can ensure India's success against the pandemic.

When we talk about Atmanirbhar Bharat, we should also have in mind Atmanirbhar panchayats. Because when a panchayat becomes atmanirbhar, it not only ensures self-sufficiency, but also ropes in more accountability and transparency in governance, which further leads to a stable and progressive village economy. In this whole effort to make India a self-reliant nation, a larger focus should be on making the panchayats and local bodies more people-driven. It is when the last person living in an Indian village becomes "Atmanirbhar", will we truly be "Atmanirbhar Bharat".

**All the best 😊**  
**Team IASbaba**