Insights 2019 Mains Exclusive (Economy)
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Indian Economy – Growth and Development

1. The Key Highlights of Economic Survey 2018-19:
   - Shifting gears: Private Investment as the Key Driver of Growth, Jobs, Exports and Demand
     - Survey states that pathways for trickle-down opened up during the last five years; and benefits of growth and macroeconomic stability reached the bottom of the pyramid.
     - Sustained real GDP growth rate of 8% needed for a $5 trillion economy by 2024-25.
     - “Virtuous Cycle” of savings, investment and exports catalyzed and supported by a favorable demographic phase required for sustainable growth.
     - Private investment: key driver for demand, capacity, labor productivity, new technology, creative destruction and job creation.

   - Key ingredients for a self-sustaining virtuous cycle:
     - Emphasizing legal reforms.
     - Ensuring policy consistency.
     - Encouraging behavior change using principles of behavioral economics.
     - Nourishing MSMEs to create more jobs and become more productive.
     - Reducing the cost of capital.
     - Rationalizing the risk-return trade-off for investments.

   - Policy for Real People, Not Robots: Leveraging the Behavioral Economics of “Nudge”
     - Behavioral economics provides insights to ‘nudge’ people towards desirable behavior.
     - Key principles of behavioral economics:
       1. Emphasizing the beneficial social norm.
       2. Changing the default option.
       3. Repeated reinforcements.
     - Using insights from behavioral economics to create an aspirational agenda for social change:
       1. From ‘Beti Baco Beti Padhao’ to ‘BADLAV’ (Betki Aapki Dhan Lakshmi Aur Vijay Lakshmi).
       2. From ‘Swachh Bharat’ to ‘Sundar Bharat’.
       3. From ‘Give it up” for the LPG subsidy to ‘Think about the Subsidy’.
       4. From ‘Tax evasion’ to ‘Tax compliance’.

   - Nourishing Dwarfs to become Giants: Reorienting policies for MSME Growth
     - Survey focuses on enabling MSMEs to grow for achieving greater profits, job creation and enhanced productivity.
     - Dwarfs (firms with less than 100 workers) despite being more than 10 years old, account for more than 50% of all organized firms in manufacturing by number.
     - Contribution of dwarfs to employment is only 14% and to productivity is a mere 8%.
     - Large firms (more than 100 employees) account for 75% employment and close to 90% of productivity despite accounting for about 15% by number.
Unshackling MSMEs and enabling them to grow by way of:

- Deregulating labor law restrictions to create significantly more jobs, as evident from Rajasthan.
- Re-calibrating Priority Sector Lending (PSL) guidelines for direct credit flow to young firms in high employment elastic sectors.

Survey also focuses on service sectors such as tourism, with high spillover effects on other sectors such as hotel & catering, transport, real estate, entertainment etc., for job creation.

- **Data “Of the People, By the People, For the People”**
  - As data of societal interest is generated by the people, data can be created as a public good within the legal framework of data privacy.
  - Government must intervene in creating data as a public good, especially of the poor and in social sectors.

- **Ending Matsyanyaya: How to Ramp up Capacity in the Lower Judiciary**
  - Delays in contract enforcement and disposal resolution are arguably now the single biggest hurdle to the ease of doing business and higher GDP growth in India.
  - Around 87.5 per cent of pending cases are in the District and Subordinate courts.
  - 100 per cent clearance rate can be achieved by filling out merely 2279 vacancies in the lower courts and 93 in High Courts.
  - States of Uttar Pradesh, Bihar, Odisha and West Bengal need special attention.
  - Productivity improvements of 25 percent in lower courts, 4 percent in High Courts and 18 percent in Supreme Court can clear backlog.

- **How does Policy Uncertainty affect Investment?**
  - Significant reduction in Economic Policy Uncertainty in India over the last one decade, even when economic policy uncertainty increased in major countries, especially the U.S.
  - **Survey proposes reduction in economic policy uncertainty by way of:**
    - Consistency of actual policy with forward guidance.
    - Quality assurance certification of processes in Government departments.

- **India’s Demography at 2040: Planning Public Good Provision for the 21st Century**
  - Sharp slowdown in population growth expected in next 2 decades. Most of India to enjoy demographic dividend while some states will transition to ageing societies by 2030s.
  - National Total Fertility Rate expected to be below replacement rate by 2021.
  - Working age population to grow by roughly 9.7mn per year during 2021-31 and 4.2mn per year during 2031-41.
  - Significant decline to be witnessed in elementary school-going children (5-14 age group) over next two decades.
  - States need to consolidate/merge schools to make them viable rather than build new ones.
  - Policy makers need to prepare for ageing by investing in health care and by increasing the retirement age in a phased manner.

- **From Swachh Bharat to Sundar Bharat via Swasth Bharat: An Analysis of the Swachh Bharat Mission**
Traceable health benefits brought about by Swachh Bharat Mission (SBM).
- 93.1% of the households have access to toilets.
- 96.5% of those with access to toilets are using them in rural India.
- 100% Individual Households Latrine (IHHL) Coverage in 30 states and UTs.
- Financial savings from a household toilet exceed the financial costs to the household by 1.7 times on average and 2.4 times for poorest households.
- Environmental and water management issues need to be incorporated in SBM for sustainable improvements in the long-term.

Enabling Inclusive Growth through Affordable, Reliable and Sustainable Energy
- 2.5 times increase in per capita energy consumption needed for India to increase its real per capita GDP by $5000 at 2010 prices, and enter the upper-middle income group.
- 4 times increase in per capita energy consumption needed for India to achieve 0.8 Human Development Index score.
- India now stands at 4th in wind power, 5th in solar power and 5th in renewable power installed capacity.
- Rs 50,000 crore saved and 108.28 million tonnes of CO2 emissions reduced by energy efficiency programmes in India.
- Share of renewable (excluding hydro above 25 MW) in total electricity generation increased from 6% in 2014-15 to 10% in 2018-19.
- Thermal power still plays a dominant role at 60% share.
- Market share of electric cars only 0.06% in India while it is 2% in China and 39% in Norway.
- Access to fast battery charging facilities needed to increase the market share of electric vehicles.

Effective Use of Technology for Welfare Schemes – Case of MGNREGS
- Survey says that efficacy of MGNREGS increased with use of technology in streamlining it.
- Significant reduction in delays in the payment of wages with adoption of NeFMS and DBT in MGNREGS.
- Vulnerable sections of the society viz. women, SC and ST workforce increased under MGNREGS during economic distress.

Redesigning a Minimum Wage System in India for Inclusive Growth
- Survey proposes a well-designed minimum wage system as a potent tool for protecting workers and alleviating poverty.
- Present minimum wage system in India has 1,915 minimum wages for various scheduled job categories across states.
- 1 in every 3 wage workers in India not protected by the minimum wage law.
- Survey supports rationalization of minimum wages as proposed under the Code on Wages Bill.
- Minimum wages to all employments/workers proposed by the Survey.
- ‘National Floor Minimum Wage’ should be notified by the Central Government, varying across five geographical regions.
- Minimum wages by states should be fixed at levels not lower than the ‘floor wage’.
- Minimum wages can be notified based either on the skills or on geographical region or on both grounds.
- Survey proposes a simple and enforceable Minimum Wage System using
technology.
  - **Effective minimum wage policy** as an inclusive mechanism for more resilient and sustainable economic development.

- **State of the Economy in 2018-19: A Macro View**
  - India still the fastest growing major economy in 2018-19.
  - **Growth of GDP** moderated to 6.8 per cent in 2018-19 from 7.2 per cent in 2017-18.
  - **Inflation** contained at 3.4 per cent in 2018-19.
  - **Non-Performing Assets** as percentage of Gross Advances reduced to 10.1 per cent at end December 2018 from 11.5 per cent at end March 2018.
  - **Investment growth** recovering since 2017-18:
    - **Current account deficit** manageable at 2.1 percent of GDP.
    - **Fiscal deficit** of Central Government declined from 3.5 percent of GDP in 2017-18 to 3.4 percent in 2018-19.

- **Money Management and Financial Intermediation**
  - Banking system improved as **NPA ratios declined** and credit growth accelerated.
  - **Insolvency and Bankruptcy Code** led to recovery and resolution of significant amount of distressed assets and improved business culture.

- **Achievements in CoP 24 in Katowice, Poland in 2018:**
  - Recognition of different starting points for developed and developing countries.
  - Flexibilities for developing countries.
  - Consideration of principles including equity and Common but Differentiated Responsibilities and Respective Capabilities.

- **External Sector**
  - As per WTO, World trade growth slowed down to 3 per cent in 2018 from 4.6 per cent in 2017. Reasons:
    - Introduction of new and retaliatory tariff measures.
    - Heightened US-China trade tensions.
    - Weaker global economic growth.
    - Volatility in financial markets (WTO).
  - The **share of foreign direct investment has risen** and that of net portfolio investment fallen in total liabilities, reflecting a transition to more stable sources of funding the current account deficit.
  - **Top export items** continue to be Petroleum products, precious stones, drug formulations, gold and other precious metals.
  - **Top import items** continue to be Crude petroleum, pearl, precious, semi-precious stones and gold.
  - **India’s main trading partners** continue to be the US, China, Hong Kong, the UAE and Saudi Arabia.
  - India has signed 28 bilateral / multilateral trade agreements with various country/group of countries.

- **Agriculture and Food Management**
  - Agriculture sector in India typically goes through cyclical movement in terms...
of its growth.

- **Women’s participation in agriculture** increased to 13.9 per cent in 2015-16 from 11.7 per cent in 2005-06 and their concentration is highest (28 per cent) among small and marginal farmers.

- A shift is seen in the number of operational land holdings and area operated by operational land holdings towards small and marginal farmers.

- 89% of groundwater extracted is used for irrigation. Hence, focus should shift from land productivity to ‘irrigation water productivity’. Thrust should be on micro-irrigation to improve water use efficiency.

- Fertilizer response ratio has been declining over time. Organic and natural farming techniques including Zero Budget Natural Farming (ZBNF) can improve both water use efficiency and soil fertility.

- **Adopting appropriate technologies** through Custom Hiring Centers and implementation of ICT are critical to improve resource-use efficiency among small and marginal farmers.

- **Diversification of livelihoods** is critical for inclusive and sustainable development in agriculture and allied sectors. Policies should focus on

- **Dairying** as India is the largest producer of milk.

**Industry and Infrastructure**

- Overall Index of Eight Core Industries registered a growth rate of 4.3 percent in 2018-19.


- **Public Private Partnerships** are quintessential for addressing infrastructure gaps.

- Building sustainable and resilient infrastructure has been given due importance with sector specific flagship programmes such as SAUBHAGYA scheme, PMAY etc.

**Services Sector**

- The services sector growth declined marginally to 7.5 per cent in 2018-19 from 8.1 per cent in 2017-18.

**Social Infrastructure, Employment and Human Development**

- The public investments in social infrastructure like education, health, housing and connectivity is critical for inclusive development.

- **Government expenditure (Centre plus States) as a percentage of GDP on**
  - Health: increased to 1.5 per cent in 2018-19 from 1.2 per cent in 2014-15.
  - Education: increased from 2.8 per cent to 3 per cent during this period.

- Substantial progress in both quantitative and qualitative indicators of education is reflected in the improvements in Gross Enrolment Ratios, Gender Parity Indices and learning outcomes at primary school levels.

- About 1.54 crore houses completed under Pradhan Mantri Awas Yojana (PMAY) as against a target of 1 crore pucca houses with basic amenities by 31st March, 2019.

- Accessible, affordable and quality healthcare being provided through National Health Mission and Ayushman Bharat scheme for a healthy India.

- Alternative healthcare, National AYUSH Mission launched to provide cost
effective and equitable AYUSH healthcare throughout the country to address the issue of affordability, by improving access to these services.

- Employment generation scheme, MGNREGA is prioritized by increasing actual expenditure over the budgetary allocation and an upward trend in budget allocation in the last four years.

2. **Accelerating Economic Growth**
   - **Accelerating economic growth** must be on top of the agenda of the new government.
   - It is only a fast-growing economy that will generate the surpluses which are necessary to address many of our socio-economic problems and to provide social safety nets.

   - **Reasons for decline in Investment Rates:**
     - **Reduction of Corporate Investments:**
       - There are several studies which indicate a fall in corporate investment.
     - **Employability and Employment rates gradually reduced:**
       - Inability of the economy to generate adequate employment.
       - Employment numbers have always been somewhat worrisome because of the presence of heavy underemployment in the country.
     - **Agrarian Distress implies slowdown in Rural Consumption:**
       - Slowdown in rural demand, which can affect the off-take of consumer goods.
       - Agrarian distress, which is the cause of slowdown in demand, needs to be tackled on a priority.

   - **Solutions to increase the Investment and Employment rates:**
     - It is faster growth and faster investment which will generate employment.
     - Some sectors such as construction are more labour intensive.
     - To deal with Agrarian distress, making available inputs such as seeds and fertilizers at an affordable cost must be the major task particularly of State governments.
     - Over the medium term, more attention must be paid to increasing agricultural productivity through consolidation of land holdings and spreading better techniques of cultivation. Improving marketing arrangements has been a neglected area.
     - **Increase Public Investment:**
       - What is needed is for the government to interact with all public sector units and prepare a programme of public investment for 2019-20.
       - A strong public investment programme can be a catalyst of private investment.
     - **Reforms that need proper implementation in Letter and Spirit:**
       - The introduction of the Goods and Services Tax is a major step. But glitches still remain in its implementation.
       - The Insolvency and Bankruptcy Code: Even here there are some bottlenecks and the government must address them.
       - Land reforms which enable entrepreneurs to buy land speedily have been suggested.
• **Labour reforms** should wait until the economy has picked up steam and moved to a higher growth path.

- **Creating Jobs for Indians:**
  - Unemployment is a major hurdle in India’s growth path. Therefore, Jobs are the pivot for the social and economic growth of the country.
  - People are pushed into either self-employment; or the unprotected and casualised wage employment.
  - Labour is a concurrent subject, thus there is multiplicity of laws at centre and state levels.
  - To ensure large-scale job creation, the freedom to create jobs must be on a par with other freedoms guaranteed by the Constitution.
  - If there is a fundamental right of job, then quality of basic education, health and social service between urban and rural residents will be narrowed.
  - The need of the hour is reversing the agrarian crisis, strengthening the education system, greater labour protections and promoting labour-intensive small manufacturing.
  - Prioritise investments in labour-intensive sectors. NITI Aayog has suggested tax holidays for big job creators.
  - India’s private sector needs to come forward to create well-paid and highly productive jobs, said former Niti Aayog Vice-Chairman Arvind Panagariya.
  - Sustainably increasing farm income needs 4Is — incentives, investments, institutions, and innovation.

- **Conclusion:**
  - To conclude, besides economic factors, **non-economic factors** are also critically important to revive what are often described as ‘animal spirits’.
  - To resolve NPA issue, the government must **infuse adequate capital into banks** at one go.

3. **Strategy for New India @75**

- A growth rate of 9% is essential to generate enough jobs and achieve universal prosperity, according to a vision document released by NITI Aayog.
- Towards this, the ‘Strategy for New India @75’ document recommends a number of steps, including increasing the investment rate, reforming agriculture, and codifying labour laws.
- “This will raise the economy’s size in real terms from $2.7 trillion in 2017-18 to nearly $4 trillion by 2022-23”.
- **Weakness of Indian Economy:**
  - A big weakness in the Indian economy’s industrial infrastructure is that middle-level institutions are missing.
  - Rather than formalising small enterprises excessively, **clusters and associations of small enterprises should be formalised**.
  - **Labour-intensive industries** are required for job creation. If the manufacturing sector is to grow from 16% to 25% of the GDP, which the strategy states as the goal, with more capital-intensive industries, it will not solve the employment problem.
  - NITI Aayog’s plan for industrial growth has very rightly highlighted the need for strong clusters of small enterprises as a principal strategy for the growth
of a more competitive industrial sector.

- **Overall growth is also emphasised by NITI Aayog:**
  - “Besides having rapid growth, which reaches 9-10 per cent by 2022-23, it is also necessary to ensure that growth is inclusive, sustained, clean and formalised.”

- **However, it is the shape of growth that matters more than size:**
  - The **employment-generating capacity of the economy** is what matters more to citizens than the overall GDP growth rate.
  - There is no joy for citizens if India is the fastest-growing economy and yet does not provide jobs and incomes.
  - The **growth of industry and manufacturing** is essential to create more employment.
  - The strategy does say that **labour-intensive industries must be promoted**, but the overall goal remains the size of the sector.

- **Increasing Tax Base much more for Human Development:**
  - The strategy highlights the urgency of increasing the tax base to provide more resources for human development.
  - It also says **financial investments must be increased** to strengthen India’s production base.
  - If tax incentives must be given, they should favour employment creation, not more capital investment.

- **Reorienting labour laws:**
  - It recommends **complete codification of central labour laws** into four codes by 2019.
  - While this will enable easier navigation for investors and employers through the Indian regulatory maze, what is required is a **fundamental reorientation of the laws and regulations** they must fit emerging social and economic realities.
  - First, the **Nature of work and employment is changing**, even in more developed economies.
  - In such a scenario, **social security systems must provide for all citizens**, not only those in formal employment.
  - Indeed, if employers want more flexibility to improve competitiveness of their enterprises, the state will have to provide citizens the fairness they expect from the economy.
  - The NITI Aayog strategy suggests some contours of a **universal social security system**. These must be sharpened.

- **Second,** in a world where workers are atomised as individuals, they must have **associations to aggregate themselves** to have more weight in the economic debate with owners of capital.
  - Rather than weakening unions to give employers more flexibility, **laws must strengthen unions to ensure more fairness**.
  - The NITI Aayog strategy mentions the need for **social security for domestic workers too.**
  - This will not be enforceable unless domestic workers, scattered across millions of homes, have the means to collectively assert their rights.

- **Third,** all employers in India should realise that **workers must be their source of competitive advantage.**
India has an abundance of labour as a resource, whereas capital is relatively scarce. Human beings can learn new skills and be productive if employers invest in them.

**Conclusion:**
- The shape of the development process matters more to people than the size of the GDP.
- Development must be by the people (more participative), of the people (health, education, skills), and for the people (growth of their incomes, well-being, and happiness).
- How well India is doing at 75 must be measured by the qualities of development, as experienced by its citizens, along these three dimensions. GDP growth will not be enough.

4. **Economic Slowdown**

- **Reasons for present Economic Slowdown:**
  - Several indicators — automobile sales, rail freight, petroleum product consumption, domestic air traffic and imports — indicate a slowdown in domestic consumption.
  - **Weaker consumer demand and slower growth in investments** were blamed for the slowdown in India’s economy.
  - The slowdown would “lead to pressures” for fiscal stimulus, including tax cuts on fuel products to boost consumption.

- **Dismal Picture of NBFC’s:**
  - India’s non-banking financial companies (NBFC) sector is affected by a series of defaults by the Infrastructure Leasing & Financial Services (IL&FS) group of companies. The NBFC’s crisis has also been called as India’s “Lehman Moment”.
  - The main problem with the NBFCs is that they are facing Asset-Liability Mismatch in which they have taken short term loans (Liabilities) in order to lend money to long term infrastructure projects (Assets).

- **Way Forward:**
  - The GST council should also think about **decrease in the tax rates** so as to promote consumption expenditure.
  - To reduce the complexity of the tax regime, there is a **need to reduce the number of tax rates**.
  - In order to revive the consumption expenditure, the new government should focus on **cutting down Income Tax and Corporate tax rates**.
  - The Consumption Expenditure accounts for 60% of India’s GDP. The recent decline in the Consumption expenditure due to agrarian distress, unemployment etc has led to slowdown in Indian Economy.
  - The new government must work with the RBI and must try to **sort out the problems of NBFC’s** at the earliest.

5. **Boosting India’s Exports**

- India is not a big exporter in the world and its share in the world trade is less than two percent.
- In 2017-18, exports recorded a growth of about 10 per cent to USD 303 billion.
- Exports played an important role in transforming countries such as South Korea and
China in recent decades.

**Government Initiatives:**
- A logistics division has been established in the department of commerce to coordinate development in the logistics space.
- Duty-free procurement of the inputs needed for exports.
- Trade Infrastructure for Export Scheme (TIES) to create appropriate infrastructure for development and growth of exports.

**Concerns / Challenges**
- India’s logistics sector is highly defragmented and very complex.
- In electronic goods, 65 per cent of our demand is met through imports.
- Vietnam and Bangladesh are becoming more competitive and are capturing the low-end manufacturing space being vacated by China.
- Economic Survey (2016-17) highlighted how India is losing out in labour-intensive sectors.
- Threat of rising protectionism and rising automation.
- The markets in some developed countries have strict standards for admitting India’s agricultural exports.

**Way Forward:**
- Doubling India’s share of world exports will require the government, states and industry to act on a mission mode.
- Speeding up the establishment of product-specific industrial clusters and enacting labour reform, at least in export zones.
- Require a sound export infrastructure by energising the Bharatmala Pariyojana to improve the efficiency of movement of goods and to cut logistics costs.
- Improving Logistics sector will facilitate 10% decrease in indirect logistics cost leading to growth of 5 to 8% in exports.
- We also need to revisit safeguard and anti-dumping duties to boost export growth.
- Banking on India’s political relationships with countries such as Cuba and many in Africa to push exports to new markets.

6. **Direct Tax Collections**

**How to increase tax collection?**
- Rewards could be more effective in motivating people to pay tax like reduced public transportation fares or special privilege in government-operated hotels, hospitals, and airlines.
- South Korea considers allowance to airport, VIP rooms, and free parking in public parking facilities.
- Providing tax-compliance certificates to firms to help them build an image.
- Making tax certificates mandatory to renew certain licenses.
- Good financial behaviour needs to be celebrated publicly.
- Government could consider an insurance scheme for informal sector business tax payers by providing financial support in times of distress.
- Quick settlement of disputed cases.
- For creating conducive tax administration there is a need to introduce academic courses on ethics and business practices for business graduates, chartered accountants, company secretaries, auditors and legal experts.
• **Concerns / Challenges**
  o The share of direct taxes in the total is still low.
  o It is also far too low when compared to its peak of over 60% in 2009-10.
  o Delay in drafting a new direct tax code due to bureaucratic delays.
• **The share of direct taxes in total tax collections must go up** as indirect taxes are relatively regressive.
• **Tax evasion is more common among the self-employed and in the unorganised sector.** So, the need is to bring large section of the informal sector under GST and make them formal.
• The government must raise the income threshold for the maximum marginal income tax rate of 30%, rather than lower the tax rate.
• India’s corporate tax rate must come down to below 20%, to ASEAN levels if it wants to maintain its stature as an attractive investment destination.
• It will create an incentive for individuals to incorporate their businesses and become more transparent.
• Reforms must aim at doubling the tax collections by the Centre and the states combined that stands at around 17% of GDP.
• **Tax Compliance (International Practice):**
  o In the US, tax compliance is high and ascribed to strong deterrent effect of selective, intensive audits.
  o In advanced countries, high tax collection and excellent public services reinforce each other.
  o Globally the revenue from personal income tax is much higher compared to corporate income tax.
  o While in India the personal income tax collection has to go up. China’s taxpayers are more than those of India, even when its income levels were similar to those of India.

7. **Benefits of getting more people into the direct tax net**
   • Helps in **decreasing income inequalities.**
   • The overall boost to tax collections means that the Indian state will be in a better position to perform its key duties without running into repeated fiscal crises.
   • A further increase in the share of direct taxes will help the government to lower regressive indirect taxes that impose a significant burden on the poor.
   • This means a **shift from a regressive to a progressive tax system.**
   • A widening tax pool means the current system in which efficient firms are taxed at a high rate because inefficient firms manage to slip outside the tax system will end.
   • Direct taxes constitute an important source of government revenue. Their collection charges are also low.
   • A **direct tax increases the civic sense of the people.** When the people are fully aware of the payment of taxes, they are also conscious of the way the government spends the money.

8. **Non-Farm Diversification**
   • The government has an objective of **doubling farmers’ income by 2022.** However, **farming distress is worsening** and it is becoming difficult to double farmers’ income by 2022.
Therefore, the role of non-farm diversification is vital to double farmers’ income.

Need for Non-Farm Diversification:

- It is difficult for marginal farmers for living from just agricultural income.
- Non-farm diversification is an important pathway for empowering landless labourers and marginal farmers, as development economist Daniel Coppard recommended in a 2001 report.
- It will help to overcome land constraint to income growth, while allowing farmers to cope with exogenous shocks through additional income.
- It even allows them to reinvest in productivity enhancing agricultural technologies.
- A growing rural non-farm economy can absorb surplus labour, slow down rural-urban migration, reduce rural-urban disparities and promote farm-non-farm linkages.
- Evidence from many developing countries suggest that diversification of rural economy towards non-farm activities has considerable potential to augment income and reduce poverty.

Way Forward:

- The livestock sector can offer significant opportunities for bolstering non-farm income.
- Focus on Migrant Workers: We have to enable migrant workers to get deserved access to various government (Central and State) schemes, despite the lack of identity proof.
- Improvement in employment in the manufacturing and services sectors will be critical in improving rural income.
- Improving education facilities and skill development programmes in rural areas will play an important role.

9. Blue Revolution

- Creating a separate department for fisheries in the Union government is a significant step.
- Fisheries are the primary source of livelihood for several communities. A concentrated effort by an independent department could help the government achieve its objective of doubling farmer’s income.
- The fisheries and aquaculture production contribute around 1% to India’s Gross Domestic Product (GDP) and over 5% to the agricultural GDP.
- India is the world’s second-largest fish producer with exports worth more than Rs 47,000 crores.
- Fisheries are the country’s single-largest agriculture export, with a growth rate of 6 to 10 per cent in the past five years.
- India’s long coastline has the potential of becoming the strength of the economy, particularly through exploitation of the Blue Economy, to ensure better standards and quality of life for a large number of people living in the coastal areas.
- The Blue Revolution scheme launched a few years ago seeks to make fishery and aquaculture a viable and rewarding vocation. The Blue Revolution mission aims at doubling the income of farmers.
- Fish Consumption must not lead to Exploitation which affects Sustainability:
  - However, like in rest of the world, India’s fisheries sector faces the challenge...
of sustainability.
  o The Food and Agriculture Organisation’s State of World Fisheries and Aquaculture reports note that nearly 90 per cent of the global marine fish stocks have either been fully-exploited, or over-fished or depleted to an extent that recovery may not be biologically possible.
• The new National Policy on Marine Fisheries, therefore, talks of introducing deep-sea fishing vessels and assisting fishing communities to convert their vessels and gears for the waters beyond.
• An integrated approach towards agro and food processing, preservation, packaging and maintenance of the cold chain will be our focus of attention.

10. Role of RBI in an Economy
• Reserve Bank of India (RBI) is India’s Central bank. It plays multi-facet role by executing multiple functions such as overseeing monetary policy, issuing currency, managing foreign exchange, working as a bank of government.
• Before inflation targeting was formally introduced in 2016, RBI was doing multiple roles. They were responsible for growth by managing liquidity as well as interest rates.
• They also took care of the financial system’s stability by supervising banks and NBFCs.
• Nobel laureate Joseph Stiglitz made a statement that if RBI Governor was the governor of the US Fed then the sub-prime crisis would not have occurred.
• The RBI plays a vital role in economic growth of the country and maintaining price stability.
• A six-member Monetary Policy Committee, headed by RBI Governor, decides the benchmark repo rate.
• RBI acts as a banker for both the central as well as state governments.
• Way Forward
  o Some experts feel that what we require at this point of time is the old RBI that is an all-rounder rather than a specialist.
  o They have to manage multiple roles.
  o They have to manage issues like inflation, growth, rupee and financial system stability.
  o Operational independence of central banks important for carrying out their responsibilities, says IMF
  o In a democracy, the final responsibility of all policy decisions must lie with Government.
  o Therefore, there should be mutual cooperation and coordination between RBI and Government in large at public interests for an efficient and sustainable economy.

11. Credit Requirements of MSMEs
• Micro, Small and Medium Enterprises (MSME) sector has emerged as a highly vibrant and dynamic sector of the Indian economy over the last five decades.
• MSMEs are complementary to large industries as ancillary units and this sector contributes enormously to the socio-economic development of the country.
• Importance of MSME Sector
  o MSMEs are a source of massive job creation mainly for less-skilled job
seekers.
  o Economically, any improvement in the sector’s operating environment will help the Indian economy.
  o The share of MSMEs in the country’s gross value added is estimated to be about 32%.
  o It also contributes about 40% to total exports and 45% to manufacturing output.
  o They help in industrialization of rural & backward areas, thereby, reducing regional imbalances, assuring more equitable distribution of national income and wealth.

- Informal Nature of MSME Sector
  o More than 90% of MSMEs operate in the informal sector.
  o These firms largely depend on informal sources of credit at higher interest rates.
  o It is difficult for these firms to get loans from banks because they do not maintain proper documents and records.
  o Most firms in the informal sector are unlikely to attract skilled labour.
  o This has not only affected growth and output, but also employment generation.

- Concerns / Challenges
  o MSMEs are largely depend on informal sources of credit at higher interest rates.
  o Availability of credit from formal sources has been a problem for the sector.
  o The share of credit to MSMEs has declined as a proportion of overall bank credit in recent years.
  o The progress made in Ease of Doing Business (EODB) rankings is real, but it’s time for another exercise that takes a ground-up look at our current regulatory frameworks.
  o India’s next wave of EODB should have three vectors—rationalization (cutting down the number of laws), simplification (cutting down the number of compliances and filings) and digitization (architecting for true paperless, presence-less and cashless).
  o Simplifying the regulatory architecture will also help in the progress of MSMEs.

12. $5 Trillion Economy
- At the meeting of the Governing Council of the NITI Aayog, Prime Minister Narendra Modi announced the target of a $5 trillion economy for India by 2024.
- India is, currently, a $2.8 trillion economy; to reach the $5 trillion mark by 2024, the economy would require nominal growth in dollar terms of over 12% a year.
- PM Modi said that the states need to recognise their core competence and aim to increase their economy by 2-2.5 times, which is roughly the size of the current deficit.
- Any upscaling of the Indian economy is only possible when agriculture is given priority and there are drastic reforms in this sector.
- To that extent, any agricultural transformation would need improved logistics, efficient supply chains, upgraded marketing, more free moment of agricultural goods within the Union of states and overhauling the Essential Commodities Act, 1955, and the Agriculture Produce Marketing Act.
- Characteristics of a valuable economy:
o India is placed very low in the United Nations’ World Happiness Report.
    The first attribute of a valuable economy would be access to quality health and education for all.
    The second attribute of a valuable economy would be equality of opportunity.
    For over three decades now income inequality has been rising in India. According to some measures, India is today more unequal than China, itself a society widely perceived as highly unequal.

- **MSMEs play a key role in economic growth, job creation and local development:**
  - The sector employs around 11.7 crore people, constituting 40 per cent of the workforce.
  - However, MSMEs are not only important for employment, they can also be an engine of growth.
  - The share of MSMEs in GDP was 29 per cent in 2015-16.

- **Conserving nature: for sustained economic growth:**
  - Two-thirds of the world’s most polluted cities are in India, when we accept less than a fifth of its population. Air pollution shortens lives and lowers productivity, reducing the capacity to earn a living when alive.
  - The poor are the most affected. Some part of environmental depletion in India is due to the pursuit of unbridled growth.

- **Conclusion:**
  - India need to carry out the crucial internal reforms that will allow it to be a productive international player.
  - Any improvement in the life of the majority would require a re-alignment of the growth process so that it is less damaging.
  - India could and should aspire to double-digit growth. Without sustained growth at that all levels it has little hope of employing the roughly one million young people who join its workforce every month.

### 13. India’s Double-digit GDP Growth is doable

- India is now the world’s sixth largest economy, displacing France.
- Getting GDP to grow by 10 per cent in real terms, though not impossible, is quite challenging.
- During 2005-08 India had recorded an average growth of around 9.5 per cent.
- What needs to be done?
  - Past experience shows that high GDP growth has been associated with years when agriculture grew by 4-5 per cent.
  - For this to materialise farm output has to be resilient and grow in an unhindered way.
  - The second is industry, where the two building blocks would be manufacturing and construction.
  - This segment has to register 10 per cent growth continuously for the overall growth number to clock 10 per cent.
  - The service sector has to necessarily grow by over 10 per cent.
- The global institutions report said that India’s millennial population of 400 million is the largest in the world and is armed with around $180 billion in spending power and with high smartphone adoption and widespread availability of mobile broadband infrastructure; it will become a disruptive force faster than most...
14. Urban Employment

- India is in the midst of a **massive job’s crisis**. The unemployment rate has reached a 45-year high (6.1%) in 2017-18 as per data from the **Periodic Labour Force Survey (PLFS)** report of the National Sample Survey Office (NSSO).
- According to the **PLFS report**, the unemployment problem is especially aggravated in India’s cities and towns.
- Aside from unemployment, **low wages and precarity** continue to be widespread.
- **Centre for Sustainable Employment**, Azim Premji University, recently published policy brief “Strengthening Towns through Sustainable Employment”, which propose the creation of a **National Urban Employment Guarantee Programme**.
- **Idea of an urban employment programme**
  - The idea of an urban employment programme is gaining traction in political and policy debates.
  - In Madhya Pradesh, the State government has launched the “**Yuva Swabhiman Yojana**” which provides employment for both skilled and unskilled workers among urban youth.
  - **Green New Deal**: In the United States of America, ‘**Green New Deal’ proposals** provide for a ‘**Green Job Guarantee**’ which enshrines ‘a legal right that obligates the federal government to provide a job for anyone who asks for one and to pay them a liveable wage’.
  - Given the State’s **relative neglect of small and medium towns** and to avoid migration to big cities, such a programme can cover all ULBs with a population less than 1 million.
  - In the context of the present employment crises, it is worthwhile considering to introduce an employment guarantee programme in urban areas.
- **Skilling and Apprenticeship is the need of the hour**:
  - Another novel aspect is the creation of a skilling and apprenticeship programme for **unemployed youth** with higher education who can sign up for a contiguous period of **150 days (five months)**, at Rs.13,000 a month for five months.
  - These employed workers can assist with **administrative functions** in municipal offices, government schools, or public health centres, and for the monitoring, measurement, or evaluation of environmental parameters.
- **Conclusion**:
  - An urban employment guarantee programme not only improves incomes of workers but also has **multiplier effects on the economy**.
  - It will **boost local demand** in small towns, improve public infrastructure and services, spur entrepreneurship, build skills of workers and **create a shared sense of public goods**.
Hence, the time is ripe for an employment guarantee programme in urban India. Hence we need new ways to promote the sustainable development of India’s small and medium towns.

15. Minimum Basic Income

- A Minimum basic income is a government guarantee that around 20-25% of citizens receives a minimum income. It is also called a citizen’s income, guaranteed minimum income, or basic income.
- The payment is enough to cover the cost of living. The goal is to provide financial security.
- The advantage of a minimum income guarantee is that it will also cover the urban poor, who are not covered in these schemes.
- Job guarantee programmes, such as the Mahatma Gandhi National Rural Employment Guarantee Scheme, lock up beneficiaries in low-productivity work, income supplements allow them to continue to look for better employment options.

- Reasons that supporting “Minimum Basic Income”:
  - The reforms since 1991 have largely bypassed agriculture and other segments of the economy that engage poor and rural Indians.
  - Due to incomplete economic liberalisation and technological advances have led to growth in national income, but all individuals have not gained equally.
  - The disproportionate share of gains from the reforms have gone to middle-class and rich Indians.
  - This unevenness in development calls for a superior economic growth model.
  - Redistributive policy interventions such as income transfers can improve equity.
  - Besides equity, there’s also an urgent need to address rural distress, which is largely a consequence of policy failures such as:
    - Ineffective procurement and perverse trade and pricing policies that have in times of bumper harvests led to gluts, depressed market prices, and
    - Aggravated farmer losses.

- An alternative approach to Minimum Basic Income is Universal Basic Capital:
  - A better solution to structural inequality than UBI is universal basic capital, or UBC, which has begun to pop up in international policy circles.
  - In this alternative approach, people own the wealth they generate as shareholders of their collective enterprises. Amul, SEWA, Grameen, and

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**Notes:**

- UBI ACROSS THE WORLD
  - **US | Alaska Permanent Fund distributes part of the state’s oil revenues to all residents on per-capita basis**
  - **Stockton, California | Secured funding from private non-profits to launch a small project with about 100 participants receiving $500 a month for about 18 months**
  - **Finland | Scheme started in 2017 to pay 2,000 jobless people assistance of €560 a month stopped last year**
  - **Korea | Largest experiment underway with some villages receiving $0.50-1 a day**
  - **Brazil | Has run experiments**
  - **Canada | Ontario plans to test a basic income scheme**

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others have shown a way.

- **Conclusion:**
  - A simplistic UBI will not solve the **fundamental problems** of the economy.
  - An **unavoidable solution** to fix India’s fundamental problems is the **strengthening of institutions of the state** to deliver the services such as of public safety, justice, and basic education and health, which should be available to all citizens regardless of their ability to pay for them.

**16. For a knowledge Economy**

- The knowledge based economies use ICT, innovation and research, higher education and specialised skills to create, disseminate, and apply knowledge for growth.
- U.S. accounts for 33% of global output of knowledge-intensive services, China 10%, but India only 2%.
- India has the potential to become a leading knowledge-based economy with its **youth population** and growing information technology.
- India has strong services sector which contribute around 60 per cent to India's GDP.
- ISRO, considered a leading space organisation globally, is one of the best and most competitive in the multi-billion-dollar space launch market.
- India is becoming a hub for 'Medical Tourists'.
- Large numbers of Indian students go for tertiary education abroad and many stay abroad leading to India's brain drain.
- **High percentage of illiteracy and informal economy** in India makes large population to be left out in reaping the benefits of Knowledge based Economy.
- Lack of Innovation and Research and Development in India. The number of Nobel prizes won by India despite its huge population is evidence to this.
- India will need supportive laws, improved infrastructure, removal of barriers to trade and investment, up-skilling of labour force, higher spending in R&D and innovative financing.
- If we wish to become a knowledge economy we should revamp our profoundly inadequate, inefficient and inequitable early health and education systems.
Indian Agriculture – Issues

1. Mahatma Gandhi’s vision for India’s development and his prescriptions
   - Gandhiji’s concept of rural development revolves around creating model villages for transforming ‘swaraj’ into ‘su-raj’.
   - Gandhi, while rejecting modern civilisation as a mode of life and work, invoked agriculture, charkha and the village as metaphors for sane human living.
   - He envisaged villages as self-sufficient republics, independent of its neighbours for its own vital wants, and yet interdependent for many others in which dependence is a necessity.
   - He knew that India lived in its villages. He wanted to bring about rural reconstruction with sound scientific and spiritual values.
   - He stressed on the growth of the rural economy through allied activities such as khadi, handloom, handicraft and sericulture.
   - Advocacy of the charkha was a way to promote gainful employment for an able-bodied individual.
   - Charkha symbolised this view about how each person could earn their own livelihood and become self-reliant.
   - According to him, large-scale production was meant to be profit-oriented and therefore, harmful for society as it could lead to concentration of wealth and power in a few hands.
   - Gandhi advocated decentralisation because it could avoid violence. He suggested delocalisation of production as against concentration in particular areas. His beliefs on decentralisation were aimed at correcting all evils of a centralised economy.

2. Gandhiji listed ways and means to improve the state of Indian agriculture
   - Prevention of fragmentation and fixing economic holdings.
   - Country-wide tapping and harnessing of water resources.
   - Improvement of soil and its productivity through natural as well as scientific treatment of manures, seeds, crop-diseases, prevention of soil erosion etc.
   - Cooperation at all the levels of governance.
   - State aid and protection to the peasants.
   - Reclamation of waste-lands inland and along the sea-coast and creeks.
   - Crops such as cotton, castor seed, groundnut, rice, sugar besides vegetables as the strength of India’s agriculture.
   - Decentralise capital formation and discourage concentration of workforce in urban pockets.

3. Minimum Support Prices
   - A key reason for the current agrarian distress is that farmers have failed to get even minimum support prices for their produce.
   - In the budget 2018-19 the government announced that farmers will be paid 1.5 times the cost of production as part of the MSP for all kharif season crops.
   - Minimum Support Price is the price at which government purchases crops from the farmers, whatever may be the price for the crops.
   - MSPs have failed to keep pace with input costs, according to data from CACP.
• The cost of cultivation varies across states, while **MSPs are based on a weighted all-India average**, so farmers don’t get guaranteed profits.
• Between 2010 and 2014, MSPs grew 12% on average, while between 2015 and 2018, they grew only 5%, according to data from credit rating firm Crisil.
• Only a selected few states such as Punjab, Haryana, MP and west UP have well-developed procurement infrastructure.
• More than three-fourths of farming households don’t produce any marketable surplus and hence can’t really benefit from price support.
• India’s price support programme is also promoting cultivation of water intensive crops like paddy and sugarcane even in water deficit regions such as Punjab, Haryana and Maharashtra.
• Rice and sugarcane occupy 25% of India’s agricultural land but consume more than 60% of its irrigation water.

**Factors for determining MSP:**
- Cost of production, Changes in input prices, Input-output price parity, Trends in market prices, Demand and supply.
- Inter-crop price parity, Effect on industrial cost structure, Effect on cost of living, Effect on general price level.
- International price situation, Parity between prices paid and prices received by the farmers.
- Effect on issue prices and implications for subsidy.

**Recommendations by NITI Ayog**
- The awareness to farmers and **timely dissemination of information** till the lowest level so that it would increase the bargaining power of the farmers.
- **Timely payment** should be ensured.
- MSP should be announced well in advance of the sowing season so as to enable the farmers to plan their cropping.
- Improved facilities at procurement centres, such as drying yards, weighing bridges, toilets, etc.
- More godowns should be set up and maintained properly for better storage and reduction of wastage.
- The criteria for fixing MSP should be current year’s data and based on more meaningful criteria rather than the historical costs.
- The **Procurement Centres** should be in the village itself to avoid transportation costs.
- The MSP scheme requires a complete overhaul in those States where the impact of the scheme is ‘nil’.

The ambitious projects like e-NAM, doubling farmer’s income by 2022, price stabilisation fund, implementation of Swaminathan and Shanta Kumar committee is required.

### 4. The MSP and Procurement Conundrum

**Over Emphasis on MSP:**
- The overall approach to agriculture is marked by reactive, rather than clear-sighted, proactive thinking.
- Increasing the MSP more to suit the interests of farmers rather than linking it with market dynamics has distorted the pricing system.
- While MSP is effective for rice and wheat, it is only indicative for other crops.
Overemphasis on support prices distorts markets and creates storage issues.
The farmers’ distress coexists with surplus production.
Higher MSPs are likely to make our rice exports globally uncompetitive, leading to further accumulation of stocks at home, and greater economic inefficiency.
States like Uttar Pradesh announce a much higher state advised price for sugarcane, and we see mounting cane arrears, in turn making the sugar industry vulnerable.

- Other Countries:
  - Setting procurement prices higher than global prices is not new in world history.
  - European Economic Community (EEC) did it earlier, leading to mountains of butter and lakes of milk.
  - China also raised MSPs of wheat, rice and corn substantially above world prices, leading to piling up of grain stocks touching 300 MMT in 2016-17.
  - But China is learning from its mistakes and since 2014, it has been reducing its MSPs for rice and wheat and has removed corn from price support.
  - On input subsidies, it has moved towards direct income support on a per hectare basis.

- Coordination is needed amongst union ministries dealing with agriculture, food, food processing, fertilisers, water, rural development, and trade to evolve a holistic approach to agriculture and farmers’ incomes.

5. Problems plaguing the farmers
- Small and fragmented land-holdings leading to poor productivity, inability to use mechanisation.
- Increased input costs of seeds, fertilizers, manures etc. The lack of working capital, formal credit facilities push farmers to high interest loans at moneylenders.
- Monsoon-dependence and lack of irrigation facilities doubled with soil erosion and loss of fertility of land due to monocropping.
- The low yield and unattractive prices are pushing peasants out of farming to unskilled labour in urban areas.
- Agricultural marketing still continues to be in a bad shape in rural India.
- Storage facilities in the rural areas are either totally absent or grossly inadequate leading to immediate sale of produce.
- The National Crime Records Bureau (NCRB) reveals that out of the total suicide incidents in the country in 2015, about 9.4 per cent were from the farming sector.
- India processes only 10% of its fruits and vegetables, as compared to 40-70% in many other countries.
- The growth rate of farmer incomes between 2003 and 2013 was only 3.1% per annum. If we want to double farmer incomes, growth should be more than 10%.
- We need climate-resilient agriculture and the budget is silent on climate change and natural resource management.

6. Indian Agrarian Crisis
- Agriculture accounts for 16% of gross domestic product (GDP), and is the main source of livelihood for nearly half our population.
• The rising frequency of farmers’ agitations and the high incidence of farmer’s suicides are symptoms of a deep malaise in the sector.

• Roots of this crisis
  o Weather - A weak monsoon or even a delayed monsoon means a significant loss of output.
  o Fragmentation of land - Demographic pressure has pushed to 0.2 hectares of cultivable land per head of rural population.
  o Price variations - The highly distorted and exploitative product market is responsible for the misery of the small farmer.
  o Shortage of money - Landless or marginal farmers lacks the resources to buy or lease land or invest in farm infrastructure. NOTES
  o APMCs - According to a study, the farmers may typically get as little as 25% of the price that consumers finally pay.
  o MSP - Small farmers usually do not benefit from the government assured MSPs. Small farmers typically do not have enough marketable surpluses.
  o Increasing debt burden - According to NSS survey, loans taken by cultivators from non-institutional sources is rising faster than from institutional sources.
  o Crop insurance programmes - They have not been able to recover farmers’ investments in most cases.
  o High-input cost of farm labour.

• Cooperative farming
  o This is already popular in France, Germany, Kyrgyzstan, Kenya, and Bangladesh among others.
  o It involves land pooling; labour pooling; joint investment, joint water management and joint production.
  o It gives more efficient farming practices and greater bargaining power.

7. How Agricultural Reforms evolved in China
• China’s serious agricultural reform began in 1978.
• In the first 20 years of reform, food grain output increased from 300 million to 500 million tonnes.
• At the same time, cereal centricity was replaced by a focus on meat, eggs, aquatic product and fruit. This shift in assortment was very successful with cereal production per capita increasing by 27% but aquatic and fruit production increasing 700% in the first two decades.
• China’s challenges are tougher than India’s, with only 15% of total land being arable in China (against about 40% in India) and vast areas being inhospitable to agriculture in the north, north-west and southwest of the country.
• China has also a shorter agricultural season than India (five months versus 10 months).
• Chinese agriculture faces challenges from water shortage and climate change.
• The focus of Chinese agriculture policy has shifted from quantity to quality and better water and fertilizer use.

8. Farm Loan Waiver
• Farm loan waivers, is now seen as a necessary promise for electoral victory. After corporate bad debt, banks are worried about the next threat — farm loan waivers.
• Present Status
Since 2014, India has seen large-scale loan waivers as a populist device and a short-term tool addressing the plight of farmers.

- According to the National Bank for Agriculture and Rural Development (Nabard) All India Rural Financial Inclusion Survey (Nafis) 2016-17, 52.5% of agricultural households were indebted.
- Non-institutional credit still hovers around 40%, and the majority of small and marginal farmers rely on moneylenders.

**Arguments against Loan Waiver**

- Study shows that farm loan waivers are not the answer.
- There are evidences on the ineffectiveness of the Agricultural Debt Waiver and Debt Relief Scheme (ADWDRS) of 2008.
- Loan waiver scheme did not have any positive impact on household savings, credit uptake from banks, or investments.
- Economic theory suggests that waiving debts via such a scheme will lead to debt overhang (essentially stagnated investments due to any new income being used largely for paying back old debts).
- A farm loan waiver benefits only farmers who have access to formal credit—commonly estimated at 30% of farmers.
- RBI Governor Shaktikanta Das said, Farm loan waiver adversely impacts the credit culture and the behaviour of borrowers.
- Farm loan waivers do not help the marginal and small farmers who form almost 85% of our farmers. Further, the tenant farmers, women are also left out due to lack of land records in their name.

**Consequences**

- Because the farmer knows that the loan will be waived in the future, she will prefer to default on the loan rather than work towards repayment.
- The RBI, in a report on state finances had cautioned against the propensity of waiving loans as they were increasing the fiscal deficits of the states.
- The RBI said that debt waivers can deflect the state from its fiscal consolidation path.
- If the waivers are not targeted efficiently the potential for these waivers contributing to inflationary pressures via higher fiscal deficits remains a key concern.
- Farm loan waivers have also resulted in a spike in banks' NPAs, in the agricultural sector.
- With loan waivers, capital investment takes a back seat, aggravating both demand and supply side constraints in the agriculture sector due to a likely fall in asset creation (irrigation, markets, power, etc) that is crucial for sustainability of the agriculture sector.

**How will farm loan waivers impact the Indian economy?**

- The monetary policy committee (MPC) of the Reserve Bank of India (RBI) pointed out that the implementation of farm loan waivers across states could hurt the finances of states and make them throw good money after bad, and stoke inflation.
- The extreme case of 50% farm debt waiver should raise concerns as it will worsen states’ debt-to-GDP ratio by 4 percentage points on average.
- This will jeopardize India’s stated aim to reduce its total public debt, Centre and states combined, to 60% of the GDP.
Way Forward

- Greater focus is required on enhancing farmer loan repayment capacity via smooth supply and value chains, and better price realisations.
- A mix of policy interventions that are aimed at reducing farmer vulnerability and helping them save more for tomorrow so that they can invest in improving their agricultural productivity.
- An Income Support Scheme for small and marginal farmers might turn out be a viable solution.
- The cost of such a scheme will be around only Rs 50,000 crore a year -- or 0.3% of GDP. This is lower than the incremental debt waiver.
- Partial waivers or small loans waivers alone won’t help.
- The Swaminathan Committee in 2004 had recommended farmers be allowed to fix the price for their produce on their own (cost of production plus 50% as profit), keeping local factors in mind.
- The government must focus on three things: crop insurance, better irrigation and subsidised seed and fertilisers.
- Alternative ways to help farmers in distress, such as raising the interest subvention limit for borrowers who repay on time.
- The Bill, which has been developed by the All India Kisan Sangharsh Coordination Committee, incorporates two key elements of reform:
  - A functional institutional credit system which is accessible and accountable to all cultivators, and protection from debt trap in bad years.

9. Cash Transfer in Agriculture

- Bhavantar Bhugtan Yojana in Madhya Pradesh was sought to provide relief to farmers by providing the differential between MSPs and market prices.
- The Rythu Bandhu scheme of the Telangana government provides ₹4,000 per acre for every season to all the farmers of the state.
- Jharkhand has introduced a scheme similar to the Rythu Bandhu scheme with enhanced payout of ₹5,000 per acre to 2.28 million farmers at the cost of ₹2,250 crore to the state government.
- Krushak Assistance for Livelihood and Income Augmentation (Kalia)
  - Kalia has been started by the Odisha government.
  - Unlike Telangana and Jharkhand, Kalia does not provide income transfer on the basis of land holding, but on the basis of households as unit.
  - Unlike a loan waiver, KALIA’s main targets are rural activities as a whole.
- Pradhan Mantri Kisan Samman Nidhi
  - To provide an assured income support to the small and marginal farmers, the Government launched the Pradhan Mantri Kisan Samman Nidhi (PM-KISAN)
  - Under this programme, vulnerable landholding farmer families, having cultivable land upto 2 hectares, will be provided direct income support at the rate of Rs. 6,000 per year.
- Role of Cash Transfer:
  - They can help households to overcome credit constraints and manage risk.
  - This can increase productive investment, increase access to markets and stimulate local economies.
  - Income support can be used to make a repayment or at least activate a bank
account which can then receive a loan.
- It can increase investment in agricultural inputs, including farm implements and livestock.
- Nonbeneficiaries and the local economy also benefit from cash transfer programmes via trade and production linkages.

**Why cash transfers will not solve the crisis in agriculture**
- While the cash-transfer model may be popular and politically rewarding, it is unlikely to solve the crisis in agriculture.
- Primarily because the crisis is not just of low incomes in agriculture.
- It will be a short-term solution and not a long-term one to provide real relief to the farmers
- **The genesis of the current crisis lies in**
  - Faulty and ad hoc export-import policy
  - Lack of infrastructure
  - Cartelisation and collusion in agricultural markets, which have prevented farmers from realizing the market prices for agricultural produce.
  - It is the combination of these, along with the twin droughts of 2014 and 2015, which created the crisis.
  - The current crisis may have worsened due to the sharp fall in agricultural crop prices.
- Cash transfers do not guarantee any protection against unforeseen events, whether natural or policy induced.
- It is not a substitute for the structural reforms needed in agriculture.
- It does not adequately compensate the farmer for the risks and uncertainty of crop cultivation.
- Except for the Kalia scheme, which offers some relief to the sharecroppers and landless labourers, most other schemes are regressive with amount of transfer proportional to the land owned.

### 10. Climate Change and Agriculture
- Climate change is any significant long-term change in the expected patterns of average weather of a region (or the whole Earth) over a significant period of time.
- India’s agricultural sector faces a significant threat from climate change and directly impacts the daily lives of farmers.

#### Indian Agriculture
- Large country with diverse climate.
- Two thirds area rain dependent. India gets around 70 percent of its annual rainfall during the monsoon season.
- Agriculture contributes 16% of India’s GDP.
- Diverse seasons, crops and farming systems.
- Close link between climate and water resources.
- Small holdings, poor cropping mechanisms and low penetration of risk management products.
- Agriculture is also contributing a significant share of the greenhouse gas (GHG) emissions that are causing climate change.

#### Impact of Climate Change on Agriculture
- Climate change affects all the three aspects of food security: availability,
access and absorption.
- Agricultural productivity is sensitive to climate-induced effects like changes in temperature, precipitation and carbon dioxide concentrations in the atmosphere.
- The major impacts of climate change will be on rain fed or un-irrigated crops, which are cultivated on nearly 60 percent of cropland.
- The World Bank report warned that by the 2040s, India would see a significant reduction in crop yields because of extreme heat.
- Rising levels of atmospheric carbon dioxide reduce the concentrations of protein and essential minerals in most plant species, including wheat, soybeans, and rice.
- It can also impact fisheries. Some marine disease outbreaks have also been linked with changing climate.
- Heat waves could threaten livestock by increasing their vulnerability to disease, reducing fertility, and declining milk production.
- Study found that climate change could have contributed to the deaths of more than 50,000 farmers or farm workers over the last 30 years.
- Water for agricultural production in the river basins of the Indus, the Ganges, and the Brahmaputra will shrink further and may impact food adequacy.

- **Consequences**
  - Climate change hits poor the most.
  - As agriculture contributes 16 per cent to India’s GDP, climate change causes about 1.5 per cent loss in GDP.
  - By 2030, rice and wheat are likely to see about 6-10 per cent decrease in yields.
  - Poor agricultural performance can lead to inflation, farmer distress and unrest, and larger political and social disaffection.
  - According to 2018 Economic Survey, India incurs losses of about $9-10 billion annually due to extreme weather events.
  - It also noted farmers’ income losses from climate change would be between 15 % and 18 % on an average.
  - All of which can hold back the economy.

- **Way Forward**
  - To cope with the impact of climate change on agriculture and food production, India will need to act at the global, regional, national and local level.
  - Enhancing the resilience of agriculture to cope with the climate change and the climate variability.
  - Increasing area under permaculture from current 108 million acres to 1 billion acres by 2050 could result in a total reduction of 23.2 gigatons of CO2, from both sequestration and reduced emissions.
  - Applying Farm yard Manure, compost or by practising organic farming to improve the soil organic matter which can help in improvement of soil health.
  - Develop climate-smart agriculture practices.
  - Adoption of Zero Budget Natural Farming (ZBNF).
  - Building on the current crop insurance program, weather-based models and technology need to be used to determine losses and compensate farmers within weeks (Kenya does it in a few days).
11. Monsoon Dependence of Indian Economy

- It is said that “agriculture is the backbone of Indian economy.” To an agriculturist, water is more valuable.
- In many ways, the monsoon is the lifeblood of India’s farm-dependent economy.
- Hence, all variations in the monsoon affect agriculture and economy of the country.

**Why Monsoon is important for Indian Economy:**
- The monsoon is important for India’s farm-dependent $2 trillion economy.
- India gets around 70 percent of its annual rainfall during the monsoon season.
- Bumper farm output keeps food prices under control and keep inflation in check.
- Monsoon rains also replenish reservoirs and groundwater that helps in improving irrigation and also boosts hydropower production.
- The loan portfolio of banks rises and banks net interest margins also rise.
- A good monsoon will mean more farm related employment leading to a higher cash flow into the economy, all with a positive impact on the overall GDP.

**Delayed or Poor Monsoon:**
- A poor monsoon season can have a rippling effect on India’s economy and overall GDP growth of India.
- A delayed monsoon can lead to supply issues and even accelerate food inflation.
- Higher food inflation translates into higher interest rates, which in turn raises the borrowing cost across the country and impacts profitability.
- A poor monsoon weakens demand for Fast-Moving Consumer Goods (FMCG) products, tractors, two-wheelers and rural housing.
- It forces the government to spend on the import of food as well as take measures like farm loan waivers. These widen fiscal deficit.
- This not only results in banks facing losses, it also disturbs the credit discipline of borrowers.
- States like Kerala, Karnataka, MP and Maharashtra - could face challenges from a deficit monsoon, as they have poor irrigation availability.

**Way Forward:**
- The monsoon-dependent Indian economy needs climate-sensitive budgeting.
- The excessive dependence on monsoon may be mitigated by the construction of modern irrigation canals, afforestation, and diversification of Indian industries.
- Farmers, especially smallholder farmers, need advance warning of emergent weather conditions at a local level.
- Develop climate-smart agriculture practices.
12. Zero Budget Natural Farming (ZBNF)

- In Budget 2019, the Union Finance Minister Nirmala Sitharaman reiterated the concept of zero Budget Farming.
- ZBNF is the set of agricultural methods which are intended to boost farmers' income by minimising the operating expenses and other variable cost heads.
- It is a farming practice that believes in natural growth of crops without adding any chemical fertilizers and pesticides. ZBNF is done using natural ingredients that reduce cost of production on inputs.

**Need for zero budget farming**
- Privatised seeds, high-quality chemical fertilisers, and other expensive crop-related inputs are typically inaccessible by small-scale farmers and peasants.
- ‘Zero budget’ farming promises to end a reliance on loans and drastically cut production costs.
- Chemical farming did not give farmers much income. Organic farming is also expensive. Both chemical and organic farming lead to global warming as they release greenhouse gases on large scale.
- According to the Food and Agriculture Organisation, the zero budget natural farming can help in eliminating chemical fertilisers and other crop-specific additives.
- They also contribute to sustainable practices in terms of health of soil and the environment.

**Green Revolution to gene revolution have come under severe criticism because of**
- Massive loss of local agrobiodiversity and associated traditional knowledge.
- Undermining of seed sovereignty.
- Farmlands are reporting high soil toxicity due to the use of pesticides and fertilisers, thus jeopardising public health.

- The government has to take a collaborative effort in creating awareness about the applications and benefits of ZBNF.
- A resource and awareness centre can be established as a part of promoting zero budget farming in India.
- Agricultural scientists in India have to rework their strategy so that farming is in consonance with nature.
- We need a global transition to a more resilient and sustainable agriculture that is less dependent on agrochemicals and draws more on natural biological and ecosystem processes.

13. Agricultural Policy needs to shift to a pro-farmer focus

- Agriculture is the backbone of Indian economy. Agriculture plays a vital role in India’s economy. Over 58 per cent of the rural households depend on agriculture as their principal means of livelihood.
- Agriculture, along with fisheries and forestry, is one of the largest contributors to the Gross Domestic Product.
- India is the largest producer, consumer and exporter of spices and spice products.
• Agricultural export constitutes 10 per cent of the country’s exports and is the fourth-largest exported principal commodity.

• Some Major problems we are facing in Water Usage:
  o Managing the Water–Energy Nexus in Agriculture:
    ▪ Energy and water are key inputs in agricultural production. It is essential to manage their use efficiently, and policymakers, researchers, academia, farmers, and social activists continually discuss how to formulate policies that will help.
    ▪ Highly subsidised electricity pricing has led to several negative externalities, such as over-pumping, higher energy use by crops, and the cultivation of more water-intensive crops, which have reduced water supplies in agriculture.
    ▪ Groundwater acts and rules, and spacing norms, are ineffective. Power pricing policies—such as metering of agricultural pump set connections and pricing of electricity (flat tariff, pro rata system)—are socially and politically sensitive.

• Measures need to be taken for paradigm shift in Agriculture:
  o The subsidy regime needs to undergo major structural changes. Investments for sustainable agriculture have to take precedence over natural resource depleting subsidies.
  o Restructuring of ICAR: Changing the main objective of ICAR to focus on best returns for farmers. ICAR has done well to increase productivity and get India out of food insecurity.
  o Designing the agricultural policy to focus on the best returns a farmer can get from his land.
  o Reforming the market and removing almost all restrictions: EC Act, APMC Act, movement across states, most of the export restrictions, etc.
  o There is need to make e-NAM and the village markets deliver for the farmers. If there is an occasional shortage, we can resort to ‘calibrated’ imports.
  o Shift from a strategy of production-chasing demand and work on a decentralised model where farmers can produce to the market, not only in terms of aggregate demand, but also in terms of the various segments, time and geographies.
  o Creating reliable information systems on market demands.
  o In order to tackle challenges posed by weather and climate variability, efforts should focus on microclimate-based strategies and crop diversification.

14. Creating a National Agriculture Market (NAM)
• National Agriculture Market (NAM) is a pan-India electronic trading portal which networks the existing APMC mandis to create a unified national market for agricultural commodities.
• Almost 40 per cent of all fruits and vegetables are lost annually in India between the grower and the consumer mainly due to lack of storage facilities, a weak transportation system and bad roads.
• A model Agricultural Produce Marketing (Regulation) Committees (APMC) Act 2003 was suggested to states.
• As many as 22 states have adopted it in some form, yet it failed to transform the...
agri-marketing structure in India.

- The country's food production has increased tremendously from just 51 million tonnes in 1950-51 to about **252 million tonnes in 2014-15**. However, farm income did not grow much. This was also highlighted by the National Commission on Farmers (NCF) headed by MS Swaminathan.
- The Government came out with the **APLM 2017, or the Agricultural Produce and Livestock Marketing (Promotion and Facilitation) Act**.
- It shifted the focus from regulation (under APMC), to **promotion and facilitation (under APLM)**, setting the right tone for agri-marketing reforms.
- The **Dalwai Committee on Doubling Farmers’ Income** has pointed out that the share of farmers in consumer’s price is very low; it generally varies from **15 to 40 per cent**. Studies conducted by the **International Food Policy Research Institute and World Bank** have confirmed this.
- **According to Ashok Gulati**, former chairman of the Commission for Agricultural Costs and Prices, commission agents in Delhi charge exorbitant fees ranging from 6 per cent to 15 per cent.
- The **aim of creating a truly unified NAM** with an efficient price discovery mechanism is still a far-fetched dream.
- States need to support some of the reforms and be a part of the e-NAM initiative.
Issues Related to Planning, Mobilization of Resources, Growth, Development and Employment

1. Formalization of Economy
   - The Economic Survey 2017-18 provides evidence of how the Indian economy is becoming more formalized.
   - The introduction of the goods and services tax (GST) has brought more firms into the tax net and will further push formalization of the economy.
   - The number of enterprises paying indirect taxes has gone up by 3.4 million, an increase of 50%.
   - The GST system is creating a vast repository of data that could be useful in policymaking.
   - For example, it is now possible to know the state-wise distribution of international exports.
   - Employees’ Provident Fund Organisation (EPFO) and the National Pension System (NPS) data show 2.2 million formal jobs added in 6 months.
   - Concerns / Challenges:
     - At present, only 10% of India’s over 470 million workforces are in the formal sector.
     - India’s informality is one reason why its tax-to-GDP ratio has been stuck at 15% or so for decades, impacting education and health care.
     - On average, firms spent 243 hours a year filing and paying taxes and the total tax payment is 61.7% of profit. GST has not reduced these compliance costs.
     - GST imposes a new system of compliance that requires frequent filing and a dysfunctional receipt matching mechanism under the GST network.
   - Policymakers should build on its success and address the drawbacks to ensure GST achieves its full potential.
   - Complying with law must become easier and in parallel law enforcement should become more effective.
   - For example in Chile and Peru inspectorates provide training for micro and small enterprises (MSEs) to comply with the law.

2. Skilling India
   - Today, India is one of the youngest nations in the world, with more than 62% of the population in the working age group.
   - Around 250 million young people will be joining the workforce over the next decade.
   - The level of competition in the future will be so high that people will have to skill multiple times to survive in their field.
   - The government’s analysis says that by 2022, 24 sectors will need an additional 109 million skilled workers.
   - Organisation for Economic Co-operation and Development (OECD) data depicts skills shortage in India.
   - The government launched the Skill India mission which aims to train over 400 million people in India in different skills by 2022. Various schemes have been launched to further the aim of skill development.
• Data shows that of the 30.67 lakh trained candidates in June 2017, only 2.9 lakh had received placement offers.

• According to a 2017 World Bank report ‘Skilling India’, more than 12 million youth in the age group 15 and 29 are expected to enter India’s workforce every year in the next two decades.

• **Government Initiatives:**
  o National Policy for Skill Development and Entrepreneurship (NPSDE) 2015:
    ▪ Target of skilling 300 million people by 2022.
    ▪ Special focus on skill development and entrepreneurship programmes for women.
  o National Skill Development Agency (NSDA), National Skill Development Corporation (NSDC) and the Directorate General of Training (DGT) under the Skill India mission.
  o National Skill Qualification Framework.
  o Pradhan Mantri Kaushal Vikas Yojana (PMKVY).
  o NITI Aayog’s programme **Sustainable Action for Transforming Human capital’ (SATH)** is the much need intervention to harvest the demographic dividend.

• **World Bank Assistance**
  o India signed a loan agreement with World Bank under ‘Skills Acquisition and Knowledge Awareness for Livelihood Promotion’ (Sankalp) project.
  o World Bank will provide USD 250 million loan to India for skill development programme to support livelihood.
  o The objective is to enhance institutional mechanisms for skills development and increase access to quality and market-relevant training for the work force.
  o Another scheme assisted by World Bank - **STRIVE (Skill Strengthening for Industrial Value Enhancement)**.

• **Sharda Prasad Committee recommendations**
  o We need better oversight, with a **national board for all skill development programmes.**
  o The core work (accreditation, assessment, certification and course standards) cannot be outsourced.
  o We should also have a mandatory rating system for the ITIs that are published periodically.
  o A **ranking of the ITIs on several parameters** such as the one done by the National Assessment and Accreditation Council in tertiary education can be replicated.
  o There should be one system, with one law and one national vocational education and training system.
  o We need a national vocational act that replaces all scattered regulations — recommended in the 12th Five Year Plan.

• **Micro-institutional reforms: Need of the hour:**
  o Critical need to reskill ITI teachers and maintain the student-teacher ratio.
  o Financial support envisaged through the NSDC should be extended to the ITIs.
  o Institutional reforms such as moving the office of the Directorate General of Employment (the arm that has all data on employment) from the Ministry of Labour to the MSDE would help.
• The best possible available solution is through a reimbursable industry contribution (RIC) — a 1-2% payroll tax that will be reimbursed when employers train using public/private infrastructure and provide data.

• RIC, which is implemented in 62 other countries, was recommended in the 12th Plan and is an idea whose time has come.
Financial Sector

1. Resolving India’s Banking Crisis
   • To sustain the high growth rate India has achieved, the country should carry out banking sector reforms.
   • IMF also said India must address the ongoing crisis in its banking sector to support investment and inclusive growth agenda.
   • Inclusive growth has been India’s policy focus throughout and the 12th Five Year Plan was even titled as – “Faster, sustainable and more inclusive growth”.
   • India’s banking system is characterised by a high share of Public Sector Banks (PSBs), accounting for over 70% of total assets.
   • Rising NPAs have also put a strain on the health of the PSBs, reflected in their declining Return on Assets (ROA) and Return on Equity (ROE) ratios.
   • The stresses on the banking sector have translated into a slowdown in industrial credit.
   • India’s banks lag behind global counterparts in terms of financial depth or the size of banks.
   • India also has low levels of private credit to GDP and credit to deposit ratio, relative to other emerging economies.
   • On bank Non-performing assets (NPAs):
     o Non-performing assets (NPAs) at commercial banks amounted to Rs.10.3 trillion, or 11.2% of advances, in March 2018.
     o Public sector banks (PSBs) accounted for Rs.8.9 trillion, or 86%, of the total NPAs. The ratio of gross NPA to advances in PSBs was 14.6%.
   • Medium-term to Long-term Solutions:
     o Prompt Corrective Actions helps the bank to improve their business for the foreseeable future instead of hurting their operations.
     o Over the medium term, the RBI needs to develop better mechanisms for monitoring macro-prudential indicators. It especially needs to look out for credit bubbles.
     o Actions needs to be taken to strengthen the functioning of banks in general and, more particularly, PSBs.
     o Governance at PSBs, meaning the functioning of PSB boards, can certainly improve.
     o One important lesson from the past decades experience with NPAs is that management of concentration risk that is, excessive exposure to any business group, sector, geography, etc. is too important to be left entirely to bank boards.
   • Overall risk management at PSBs needs to be taken to a higher level. This certainly requires strengthening of PSB boards. We need to induct more high-quality professionals on PSB boards and compensate them better.
   • India needs a safe and efficient banking system to service the needs of a growing economy. The RBI as well in addition to government part would do well to use the current opportunity to strengthen the banking system.
2. **External Commercial Borrowings**

- External commercial borrowing (ECB) is basically a loan availed by an Indian entity from a non-resident lender.
- They are used widely in India to facilitate access to foreign money by Indian corporations and PSUs (public sector undertakings).
- In the post-reform period, ECBs have emerged as a major form of foreign capital like FDI and FII.
- Unlike China, most of the Indian foreign debt is mainly owned by the private corporate sector.
- ECBs have emerged as one of the chief conduits for **strengthening the Indian corporate debt market**.
- According to data on ECBs from RBI, it is found that its quantum has grown during the last decade (financial years 2007–17).
- The government follows a well-designed ECB policy - government puts ceiling for the total amount of ECBs that can be obtained by all Indian firms through the ECB route during a year.
- RBI recently liberalised the norms for ECB by including more sectors in the window.
- **The Sahoo Committee report on ECB**
  - The Sahoo Committee was set up in 2013, to develop a **framework for access to domestic and overseas capital markets**.
  - The Committee noted that the possibility of market failure can be ameliorated, by requiring firms that borrow in foreign currency to **hedge their exchange risk exposure**.
  - The present complex array of controls on foreign currency borrowing should be done away with.
  - The **Indian domestic rupee debt market** is a viable alternative to foreign borrowing for financing Indian firms and does not entail any market failure.
  - The policy should aim at removal of all impediments to the development of the domestic rupee debt market.
Infrastructure: Energy, Ports, Roads, Airports, Railways etc

1. Infrastructure Sector in India
   - Infrastructure sector is a key driver for the Indian economy.
   - Infrastructure sector includes power, bridges, dams, roads and urban infrastructure development.
   - Over the next decade, an estimated $1.5 trillion is needed to create infrastructure, and overhaul and refurbish existing infrastructure.
   - Infrastructure development will benefit Government’s Ease of Doing Business.
   - Government Efforts
     - With Initiatives such as ‘Housing for All’ and ‘Smart Cities,’ the government is working on reducing the bottlenecks that impede growth in the infrastructure sector.
     - Under UDAY scheme the government has taken steps to improve operational and financial parameters of discoms.
     - The National Highways Authority of India (NHAI) launched Masala Bonds in May 2017, for raising capital for funding the infrastructure projects in India.
     - National Infrastructure Investment Fund (NIIF) with an initial corpus of Rs 40,000 crore.
     - The modernization of Indian Railways has been one of the top priorities of the central government.
   - Green Infrastructure
     - The real estate sector is held accountable for 22 percent of India’s annual CO2 emissions.
     - India will benefit if investments are steered towards green infrastructure projects.
     - Green bonds can provide a long-term source of debt capital for renewable infrastructure projects.
     - Germany is one country that has been a nest for the innovation and application of green technologies. This can provide a useful lesson for India.
   - Strengthening of PPP route, as it has been able to deliver world class infrastructure in sectors such as airports.
   - In 2015, the Kelkar Committee suggested overhauling of the PPP framework in India through measures such as funding through hybrid models and adoption of international best practices.
   - Ensure a robust regulatory environment for domestic and international funding of infrastructure by introducing an independent PPP regulator in India.
   - As India move towards completing 100 years of independence in 2047, the country must strive to emerge as a developed country complete with all modern and updated infrastructure and an example for the world to see.

2. Electric Vehicles in India
   - The vision for the future of mobility in India is based on 7 Cs: common, connected, convenient, congestion-free, charged, clean, and cutting-edge.
   - Electric vehicles are the future of India's transportation system and could save billions of dollars in fuel cost while also reducing pollution, a report released by NITI
Aayog said.

- **Three key strategic goals**
  - Cutting down carbon emissions
  - Creating new job opportunities
  - Reduce use of crude oil

- It is anticipated that the 2020s will be the decade of the electric car and a step forward towards a clean environment for the next generation.

- Adoption of electric and shared vehicles could help country save $60 billion in diesel and petrol along with cutting down as much as 1 gigatonne (GT) of carbon emissions by 2030.

- It will help in achieving the target of “Paris climate agreement”.

- Electric vehicles operating cost per kilometre driven is lower and it contributes to cutting city pollution.

- According to a research, 90 per cent of India’s car owners would willingly switch to electric cars, with proper infrastructural support.

- The government aims for 30 per cent electric mobility by 2030.

**Government Initiatives**

- The government aims to see 6 million electric and hybrid vehicles on the roads by 2020 under the **National Electric Mobility Mission Plan 2020**.

- **Faster Adoption and Manufacturing of Electric Vehicles in India (FAME India Scheme)** for improving electric mobility in India.

- The Union power ministry categorized charging of batteries as a service, which will help charging stations operate without licences.

- Implementation of smart cities would also boost the growth of electric vehicles.

**International Practice**

- In Norway one in three vehicles (33.1%) registered is plug-in electric.

- China and US account for more than half of electric cars in the world.

- China’s auto industry is rapidly turning all-electric.

- China plans to have 500,000 public charging piles in place by the end of 2020.

- UK and France are targeting towards 100% electric cars by 2040.

**Concerns / Challenges**

- The Indian electric vehicle (EV) market currently has one of the lowest penetration rates in the world.

- Local production of inputs for EVs is at just about 35% of total input production.

- India’s limited ability to manufacture cost effective batteries.

- India does not have any known reserves of lithium and cobalt, which makes it dependent on imports of lithium-ion batteries from Japan and China.

**Way Forward:**

- Need to shift the focus from subsidizing vehicles **to subsidizing batteries** because batteries make up 50% of EV costs.

- Increasing focus on **incentivizing electric two-wheelers** because two-wheelers account for 76% of the vehicles in the country and consume most of the fuel.

- A wide **network of charging stations** is imminent for attracting investment.

- Work places in tech parks, Public bus depots, and Multiplexes are the
potential places where charging points could be installed. In Bangalore, some malls have charging points in parking lots.

- Corporates could invest in charging stations as Corporate Social Responsibility compliances.
- **Addressing technical concerns** like AC versus DC charging stations, handling of peak demand, grid stability etc.
- **Private investment** in battery manufacturing plants and developing low cost production technology is needed.
- **Acquiring lithium fields** in Bolivia, Australia, and Chile could become as important as buying oil fields as India needs raw material to make batteries for electric vehicles.
- Providing **waiver of road tax and registration fees**, GST refunds and free parking spaces for EVs.

3. **Private Sector Investment in Infrastructure**

   - According to Economic Survey 2018, India will need about USD 4.5 trillion in the next 25 years for infrastructure development.
   - The **Global Infrastructure Outlook** reflects that rising income levels and economic prosperity is likely to further drive demand for infrastructure investment in India over the next 25 years.
   - The current trend shows that India can meet around USD 3.9 trillion infrastructure investment out of USD 4.5 trillion.
   - The Survey stressed the need to fill the infrastructure investment gap by financing from private investment, National Infrastructure Investment Bank (NIIB), Asian Infrastructure Investment Bank (AIIB) and New Development Bank.
   - Achieving infrastructure investment of 5% of GDP requires considerably more private sector contribution.

   **Present Status**
   - The private sector contributed an estimated ₹20 trillion, or a third of India’s ₹60 trillion infrastructure investment, between fiscals 2008 and 2017.
   - However, it has declined sharply in recent years in terms of share of investment, from 37-38% to below 25% in fiscal 2018.
   - Over-investments in the couple of fiscals through 2012 have backfired, leaving in stalled projects and huge stressed assets.
   - National highways remain the only bright spot, where policy actions and the hybrid annuity model (HAM) have revived projects.
   - **Toll-operate-transfer (TOT)** auction is a great example of asset monetization and crowding-in of private capital.
   - The Government has taken several steps to encourage investment by private sector like launching of innovative financial vehicles such as
     - Infrastructure Debt Funds
     - Infrastructure Investment Trusts/Real Estate Investment Trusts
     - Framework for issuance of municipal bonds
     - Relaxation in External Commercial Borrowing (ECB) norms
     - Establishment of National Investment and Infrastructure Fund (NIIF)
     - Relaxation of norms for Employees' Provident Funds Organization (EPFO)/pension funds for infrastructure sector
     - Bringing in 5/25 scheme to extend long tenor loans to infrastructure projects.
• **Way Forward**
  o Capable creditworthy public institutions are an essential prerequisite to attract private investment.
  o Expediting creation of a **PPP think-tank institution** as recommended by the Kelkar committee could help.
  o We should look beyond conventional build-operate-transfer models to **annuity and investment-lite performance-contracting models**.
  o This would require recalibrating risk-sharing, and reworking contracts with clear performance metrics.
  o Stalled projects need to be dealt with steadfastly to attract private developers.
  o Strengthening bond markets and expeditious deployment of capital under the National Investment and Infrastructure Fund can help.
  o CRISIL said that the problem of stressed assets in the banking system to push the investment cycle.

4. **Green Projects**

• **India targets of Renewable Energy:**
  o A target of installing **175 GW of renewable energy capacity by the year 2022** has been set, which includes 100 GW from solar, 60 GW from wind, 10 GW from bio-power and 5 GW from small hydro power.
  o However, **Wind and Solar power capacity additions have been far less than satisfactory** and hardly on the path to meeting the targets.

• **Major issues to deal with Renewable Energy:**
  o **Land ownership** is major issue that slows the implementation process and brings in corruption.
  o The adoption of **solar-powered agricultural pumps** (KUSUM scheme) is way below the potential.
  o Last year, the government imposed a safeguard duty of 25% on all imported cells/modules. This was done in order to promote domestic manufacturing of the solar cells/modules. This has led to **increase in the capital costs of the solar energy projects** by 10-15%.

• **Decreased Tariff benefits not passing to customer:**
  o Main focus of MNRE has been to bring down tariffs of wind and solar power that is sold to the electricity distribution companies.
  o However, this decrease in tariff is not being passed onto the consumer.

• **Issue with Polarisation of Wind energy Investments:**
  o For wind energy, most energy companies intend to invest in Gujarat which has the highest potential.
  o However, Gujarat has raised concerns that most of these projects which take large land in Gujarat will have the power going to other States.
  o Therefore, Gujarat has formed various conditionalities on such projects which is not in favour of RE developers.

• **Ocean energy** (from waves, tides and currents), for instance, shows great promise, can provide steady, 24×7 power.

• **Innovative Financing measures** such as clean energy fund, generation-based incentive linked loan repayment and green bonds could be one solution to overcome the financial needs of this sector.
5. India’s Renewable Energy Challenge

- **Solar energy** will play the most prominent role in the push for green energy.
- Not only does it have a larger share of India’s targets, it represents much of the growth of renewable energy.
- However, there are many hidden costs associated with green energy.

**Social Cost:**
- Economic survey 2016-17 had raised the issue that investment in renewable energy would have social cost Rs 11 per unit of electricity generated.
- Shift to renewable energy would leave the conventional plants under-utilised, lower than maximum technically feasible limit. Investments made in these plants would be deemed as sunken cost due to revenue loss.
- Banking sector which has extended loans to Coal plants would come under stress.
- Opportunity cost of land used for solar power plant. It requires 5-6 acres per 1 MW as per Ministry of New and Renewable energy.

**Hidden Costs / Challenges**
- Sunlight is available only during the day. Photovoltaics (PV) delivers electricity only when the sun shines. The peak demand in India is during the evening when solar energy (unless stored) is not available.
- Solar panels require much more space to generate the same amount of power as fossil fuel or nuclear power generators. Additional worries include concerns on panel quality/lifespan.
- We lack flexible markets and dynamic pricing — most power is sold via static power purchase agreements (PPAs).
- Land costs, availability, and bankability are also growing concerns.
- Wind is also seasonal, especially in coastal regions. Turbines might cause noise and aesthetic pollution. Birds have been killed by flying into spinning turbine blades.
- Hydro power generation is a good complement and India has enormous potential. However, this potential has not been tapped on account of environmental considerations. The ongoing projects, like the one at Subhanshree in Assam, have languished and the delays have led to cost escalation that has made the project unviable.

**Way Forward**
- Storage and the cost shall be key determinants for sustainability of solar energy
- Time of Day (ToD) pricing — in which consumers are charged based on when power is consumed — will encourage not just dynamic load management but also boost energy storage technologies.
- Support distributed and off-grid generation systems, as well as the adoption of storage technologies.

6. Solar Manufacturing Strategy

- India has made significant progress in creating capacity for solar energy generation in the last few years.
- The unit costs of solar power have fallen, and solar energy has become increasingly competitive with alternative sources of energy.
• This rapid progress should have been made earlier, however. India is energy deficient yet blessed with plenty of sunlight for most of the year.

• However, India is not a leader in Solar panel Manufacturer:
  o Just as India has had no overall industrial policy since economic reforms began, there is no real plan in place to ensure solar panel manufacture.
  o India should have taken a lead in solar panel manufacture to generate solar energy long ago. The share of all manufacturing in GDP was 16% in 1991; it remained the same in 2017.
  o Despite the new policy focus on solar plant installation, India is still not a solar panel manufacturer.
  o The solar power potential offers a manufacturing opportunity. The government is a near monopsonistic buyer.

• Low-Cost Chinese Imports taking the Indian Market:
  o India is regarded by the global solar industry as one of the most promising markets, but low-cost Chinese imports have undercut its ambitions to develop its own solar technology suppliers. Imports, mostly from China, accounted for 90% of 2017 sales, up from 86% in 2014.

• China’s cost advantage must be implemented in India too:
  o The first is core competence:
    ▪ The six largest Chinese manufacturers had core technical competence in semiconductors before they turned to manufacturing solar cells at the turn of the century.
    ▪ Indian companies had no learning background in semiconductors when the solar industry in India began to grow from 2011.
    ▪ State governments need to support semiconductor production as part of a determined industrial policy to develop this capacity for the future.
  o The Chinese government has subsidised land acquisition, raw material, labour and export, among others. None of this is matched by the Indian government.
  o The cost of debt in India (11%) is highest in the Asia-Pacific region, while in China it is about 5%.

• Conclusion:
  o in terms of manufacturing of solar equipment, it is dominated by a handful number of countries. India, in order to become a world leader in solar power, cannot just rely on large scale solar deployment by importing solar equipment.
  o There is an immediate necessity to develop the entire value chain ecosystem to become competitive and achieve sustainable growth in the long run.

• Connecting the solar irrigation pumps to the grid to sell surplus electricity provides an additional source of income for the farmer.
• This has been demonstrated by International Water Management Institute (IWMI) through a pilot project in Dhundi.
• Farmers get daytime, reliable, free power supply which reduces their production risk
• Punjab farmers have demonstrated a saving of about 30 per cent due to day time power supply and ability to optimise use of water.
• Recurring power subsidy to agriculture would get replaced by one-time capital subsidy.
• Discoms would get cheap decentralised distributed generation that would reduce their network losses.
• During drought and crop failure, farmer can reduce the scale of agriculture and earn more money from sale of power.
• It could save the Government the subsidy it spends.

8. Rooftop Solar
• India has set an ambitious target of achieving 40 GW of rooftop solar capacity by 2022.
• Way Forward to achieve 40 GW of rooftop solar capacity by 2022:
  o Performance-based incentives will be provided to DISCOMs based on RTS capacity achieved in a financial year over and above the base capacity, i.e., cumulative capacity achieved at the end of previous financial year.
  o Devising simple, well-designed and creative ways to disseminate information is important to help consumers make informed decisions on issues like:
  o On the amount of shadow-free roof area needed for generating a unit of electricity and pricing; operating the system, after-sales maintenance and support; and reliable rooftop solar vendors.
  o The DISCOMS like local electricity linesmen, electricity inspectors, and other nodal officials in the electricity department also have key roles to play.
  o Objective information must be put out through various avenues, so that it is accessible to all segments of the population and in local languages.
  o Information kiosks can be set up in public institutions like banks to offer information on the technology, as well as on practical issues such as guidance on selecting vendors.
  o A robust feedback mechanism can be put in place for consumers to share their experiences with others.

9. Achieving 24*7 Power for All
• Electricity consumption is one of the most important indices that decide the development level of a nation. Electricity is the driver for India’s development.
• Almost every willing household in India now has a legitimate electricity connection.
• The household electrification scheme, Pradhan Mantri Sahaj Bijli Har Ghar Yojana, or Saubhagya, has been implemented at an unprecedented pace.
• Beyond connections: Uninterrupted Power Flow must be Way Forward:
  o Despite such massive efforts, the battle against electricity poverty is far from won.
  o While the median hours of supply increased from 12 hours in 2015 to 16 hours a day in 2018, it is still far from the goal of 24×7.
  o Despite the subsidies, constant loss of revenue would make it unviable for DISCOMs to continue servicing these households in the long run.
  o Around 27% of the electrified rural households in the six States were not paying anything for their electricity.
• In order to achieve 24×7 power for all, we need to focus on three frontiers:
  o First, India needs real-time monitoring of supply at the end-user level:
    ▪ While the government is bringing all feeders in the country online,
we currently have no provision to monitor supply as experienced by households.

- **smart meters** (that the government plans to roll out) should help enable such monitoring.
  - Second, DISCOMS need to focus on improving the quality of supply as well as maintenance services
  - Finally, the improvement in supply should be complemented with a significant improvement in customer service, which includes billing, metering and collection.

- As we focus on monitoring, high-quality supply, better customer service and greater revenue realisation at the household level, we also need to prioritise electricity access for livelihoods and community services such as education and health care.
- Only such a comprehensive effort will ensure that rural India reaps the socio-economic benefits of electricity.

10. Offshore Wind Energy

- Offshore wind energy is the use of wind farms constructed in bodies of water, usually in the ocean on the continental shelf, to harvest wind energy to generate electricity.
- The government has set a target for offshore wind energy generation of 5 GW by 2025 and 30 GW by 2030.
- The National Off-Shore Wind Policy was notified in October 2015 to realise the offshore wind power potential in the country.
- The Ministry of New & Renewable Energy (MNRE) has been authorized as the Nodal Ministry for use of offshore areas within the Exclusive Economic Zone of the country.
- Government has paved way for development of the offshore wind farms up to the seaward distance of 200 Nautical Miles (within its Exclusive Economic Zone) from the base line.
- The MNRE recently invited Expressions of Interest (EoI) for the first 1 GW offshore wind project in India.
- Given India's coastline of 7,600 km, the country has enormous potential for offshore wind energy.
- India has an estimated 127 gigawatts of offshore wind power potential.
- The government has identified Gujarat and Tamil Nadu as potential destinations for offshore wind projects in the country.
- Global Practice:
  - Globally there has been an installation of about 17 to 18 Gw of offshore wind power.
  - Globally, **UK tops the list of offshore wind markets**, followed by Germany, Taiwan, China and the USA.

11. India's Energy Sector Reforms

- The status of the energy sector in India is highly uneven and the scope for reform in many areas still exists.
- As per estimates by the **Central Electricity Authority**, electrical energy requirement is expected to grow by 37 per cent by the financial year 2021-22
- **Need for Reforms**
  - To achieve government's vision of energy access, efficiency, sustainability
and security.
  o To secure universal, affordable, accessible, 24x7 quality power for all.
  o To explore ways to raise domestic output and cut imports.

• Initiatives in Past 3 Years
  o Deregulation of diesel prices, which reigned private sector interest in fuel retailing.
  o Gas pricing and marketing freedom.
  o New policy for exploration and production. Russia’s Rosneft acquired Essar Oil’s refinery in Gujarat and a countrywide fuel retail network for $12.9 billion.
  o The government has allowed the oil marketing companies to follow dynamic pricing of auto fuels across the country from 16 June 2017.

• Private investments have stagnated for the last few years while fuel demand has been rising by 5-6 percent annually.
• Need to develop energy infrastructure and access to energy in eastern India.
• Need for a unified energy policy, seismic data sets and a gas tariff regulatory board.
• We need to think strategically and plan for next 10, 15 and 20 years. UK has announced that by 2040 no car registration would be allowed other than for electric vehicles.
• As India moves towards a cleaner and more fuel-efficient economy, its benefits must expand horizontally to all sections of the society, and in particular to the poorest.
• Both conventional and non-conventional sources have their own advantages and disadvantages and the right balance of both is very important.

12. A Long-term Strategy to Reduce Crude Imports
• India’s energy consumption will grow 4.5 percent every year for the next 25 years.
• India imports 80 percent of its oil needs and is the third largest oil consumer in the entire world.
  Country’s refineries are on track to meet the ambitious target to produce clean and affordable fuel by April 2020.
  The primary benchmark for international oil prices, the Brent crude, reached a level ($80.49 per barrel) in May that was not seen since 2014.
• US sanctions on Iran have also affected sentiments considerably.
• The government had collected around ₹2 trillion from excise duties in 2017-18, which played a crucial role in fiscal management.
• What India needs now is a carefully devised strategy that is not driven by short-termism, but aims to gradually insulate the country from global oil price volatility.
• Since the transport sector accounts for around 70% of the total diesel sales in the country, it is an appropriate sphere for a transition from traditional fuels to electric motors.
• Within the transport sector, trucks alone account for around 28% of the diesel consumption. Thus, creating dedicated electric corridors for trucks on the highways could go a long way in curbing oil imports.
• Expanding the biofuel blending in petrol. If these fuels together reduce oil imports by 20%, the country could save up to $18 billion a year in terms of foreign exchange.
Industrial Policy and Industrial Growth

1. Why an Industrial Policy is Crucial
   • Need of New Manufacturing Policy:
     o The contribution of manufacturing to GDP in 2017 was only about 16%, a stagnation since the economic reforms began in 1991.
     o The contrast with the major Asian economies is significant. For example, Malaysia roughly tripled its share of manufacturing in GDP to 24%, while Thailand’s share increased from 13% to 33% (1960-2014).
     o In India manufacturing has never been the leading sector in the economy other than during the Second and Third Plan periods.
   • Key reasons for an Industrial policy in India:
     o There is the need to coordinate complementary investments when there are significant economies of scale and capital market imperfections.
       ▪ For example, as envisaged in a Visakhapatnam-Chennai Industrial Corridor.
     o Industrial policies are needed to address learning externalities such as subsidies for industrial training (on which we have done poorly).
       ▪ A lack of human capital has been a major constraint upon India historically being able to attract foreign investment (which Southeast Asian economies succeeded in attracting).
     o The state can play the role of organiser of domestic firms into cartels in their negotiations with foreign firms or governments, a role particularly relevant in the 21st century after the big business revolution of the 1990s.
     o The role of industrial policy is not only to prevent coordination failures (ensure complementary investments) but also avoid competing investments in a capital-scarce environment.
       ▪ Excess capacity leads to price wars, adversely affecting profits of firms — either leading to bankruptcy of firms or slowing down investment, both happening often in India (witness the aviation sector).
       ▪ Even worse, price wars in the telecom sector in India have slowed profits (even caused losses), which hampers investment in mobile/Internet coverage of rural India where access to mobile phones and broadband Internet, needs rapid expansion.
       ▪ The East Asian state managed this role of industrial policy successfully.
     o When structural change is needed, industrial policy can facilitate that process.

2. Electronics Manufacturing in India
   • The Indian electronics industry is one of the largest and fastest-growing industries in the world.
   • India has a share of about 1.5 per cent in the world in total electronics hardware production.
   • India offers the 3 'Ds' for business to thrive— democracy, demography and demand.
   • Of the country’s total demand for electronics, between 50-60% of the products and
70-80% of the components are imported.

- Currently, domestic value addition in manufacturing is less than 50 per cent for appliance and consumer electronics.
- Hence the huge outgo of foreign exchange.
- If the situation doesn’t change, expenses on electronics imports could surpass those on oil imports by 2020.
- Samsung’s biggest mobile-phone manufacturing site was opened in Noida recently.

**National Policy on Electronics 2019:**

- The Policy envisions positioning India as a global hub for **Electronics System Design and Manufacturing - (ESDM)** by encouraging and driving capabilities in the country for developing core components, including chipsets, and creating an enabling environment for the industry to compete globally.
- **Targets:** Promote domestic manufacturing and export in the entire value-chain of ESDM for economic development to achieve a turnover of USD 400 billion (approximately INR 26,00,000 crore) by 2025.

**What made China Competitve in Electronics Manufacturing?**

- **Stable and substantial supply chain** in China with large economies of scale helped China maintain low costs and high margins.
- **Incredible government support** the stakeholders received primarily in the form of capital subsidy and relaxation of taxes.
- It became an export destination for global electronic giants as the country supplied **large qualified workers at low wages**.
- However, the “low-cost manufacturing” tag has started to lose its sheen, making other emerging economies, such as India, Vietnam, and Malaysia, more attractive for investment.

**Government Initiatives:**

- The government has listed the **electronics industry as a priority sector** under Make in India campaign.
- Encouraging domestic manufacturing by providing **tax and tariff concessions**, investment subsidies, preferential market access in government procurement and export subsidy.
- The Government has envisioned a **policy to substitute the import of electronic products** by 2020.
- Government initiatives like **Digital India** are providing an impetus to the electronics manufacturing sector.

**Foreign direct investment (FDI) in electronics** is less than 1% of the total FDI inflow because of onerous labour laws, delays in land-acquisition and the uncertain tax regime.

**Lack of Rare Earth Minerals.** China currently dominates the reserves of Rare Earth minerals.

**R&D and Innovation** in electronic manufacturing is lacking in Indian industries.

There’s real urgency for the government to move quickly to **boost the domestic components industry**.

**Lower input cost** will lead to domestic manufacturing becoming cost-competitive and commanding a higher share in both the domestic and export markets.

In order to inspire investor confidence, **laws need to be liberal and predictable**.

**Establish special economic zones** like the Dubai International Financial Centre—
Dubai’s normal civil and commercial laws do not apply in this area.

- **Reforming labour and land** would make India an attractive destination in the global supply chain.
- Create a hundred **design studios** for new product development.

3. **Global Value Chains (GVC)**

   - The GVC model breaks the product life-cycle into many tasks. Participating countries complete each task sequentially.
   - Inputs and products manufactured in GVCs account for two-thirds of world trade.
   - The iPhone is a good example to understand how GVCs work.
   - The US prepares the iPhone design and prototypes, while Taiwan and South Korea produce critical inputs such as integrated circuits and processors.
   - Final assembly takes place in China from where the iPhones are marketed all over the world.

- **Why is India out of GVCs?**
  - **Small basket**
    - 70 per cent of India’s export earnings come from the small basket products.
    - The small basket contains products that account for 30 per cent of world trade. The large basket holds the remaining 70 per cent.
    - The small basket items include small diamonds, jewellery, rice, buffalo meat, shrimps, petroleum, cotton, yarn etc.
    - The small size of the global basket limits the potential for future growth.
    - Also, most products face intense competition from low-cost countries such as Bangladesh and Vietnam.
  - **Weak global share**
    - Electronics, telecom, and high-end engineering products are important large basket items.
    - India has a weak global export share in these commodities.
    - China, Japan, South Korea, Thailand and Malaysia have become part of GVCs through the quality trade infrastructure route.

   - According to UN, there appears to be a **positive correlation between participation in GVC and GDP per capita growth rates**.
   - India needs to **improve connectivity infrastructure and industrial laws** to raise its ranking in world trade.
   - Policy initiative must target all parts of the GVC life-cycle from conceptualisation, development of a prototype, to manufacturing, to aftersales service.

4. **Rampant Ever-greening in Indian Pharma Industry**

   - India is the largest provider of generic drugs globally with the Indian generics accounting for 20 per cent of global exports in terms of volume. India’s cost of production is **nearly 33 per cent lower** than that of the US.
   - Labour costs are **50–55 per cent cheaper** than in Western countries.
   - The Indian pharmaceutical market size is expected to grow to **US$ 100 billion** by 2025.
   - Presently **over 80 per cent of the antiretroviral drugs** used globally to combat AIDS
are supplied by Indian pharmaceutical firms.

- Pharmaceutical companies through ever-greening continue to seek extra patents on variations of the original drug.
- The U.S. recognises and encourages secondary patents. India, however, does not.
- In India, couple of years ago, Swiss company Novartis filed a new patent on its drug Glivec, a drug used to fight leukaemia. But Supreme Court refused to grant Novartis a patent for a new version of its cancer drug as the drug was not substantially different from original one.
- India’s patent law also does not accept Ever-greening of drugs.
- A key highlight in the Indian law is Section 3(d) of The Patents Act, 1970, which was introduced in 2005 as a yardstick to distinguish real innovation from trivial tweaks.
- Despite such measures, ever-greening practices may be rampant in India, based on a study of about 2,300 patents for drugs granted between 2009 and 2016.
- The UN report also urges member states of WTO to adopt a permanent revision of Paragraph 6 of the TRIPS agreement to enable swift and expeditious export of pharmaceutical products produced under compulsory license. India should take the lead in ensuring universal access to affordable drugs through such measures.
- National Biopharma mission needs effective implementation.


**Land Related Issues**

1. **The Need for Digitizing Land Records in India**

   - The Peruvian economist Hernando de Soto has often pointed out that a *modern market economy requires a strong system of property rights*.
   - Nearly two-thirds of all pending cases in Indian courts are related to property disputes costing a whopping Rs.58,000 crore in litigation, both civil and criminal.
   - **Land Records digitization** can help accelerate India’s GDP by as much as 1.3%.
   - NITI Aayog has said that such property cases take an *average of 20 years to settle*.
   - The result is that millions of Indians *cannot use their principal asset as collateral to borrow from the formal financial system*.

   - **Government steps to digitise Land records:**
     - Digital India initiative aims to modernize land records management.
     - Some states, such as Madhya Pradesh, Andhra Pradesh, Telangana, Chhattisgarh, Tamil Nadu and Maharashtra, doing better than the others.
     - The government has now *pushed the year of completion of digitization of land records to 2021*.

   - **State Government Initiatives:**
     - The Bhoomi Project in Karnataka led the way even before the Union government got into the act. The state government began to *digitize land records* at the turn of the century.
     - The Rajasthan legislature passed the Rajasthan Urban Land (Certification of Titles) Act in April 2016. This law ensures that the state government is a *guarantor for land titles in Rajasthan*, and will provide compensation in case of issues of defective title.
     - Andhra Pradesh government has tied up with a *Swedish firm to use new blockchain technology to prevent property fraud*. 
1. **Self Help Groups (SHGs) in India**

   - “Man can never be a woman’s equal in the spirit of selfless service with which nature has endowed her” – Mahatma Gandhi.
   - “SHGs are small economical homogenous affinity groups of rural poor, voluntarily formed to save and mutually contribute a common fund to be lent to its members as per group decision”.
   - If Panchayats are institutions of representation, women’s self-help groups are institutions of participation.

   - **SHG Movement in India**
     - SHG movement in India gained momentum after 1992, when NABARD realised its potential and started promoting it.
     - NABARD’s SHG-Bank Linkage Program (SBLP) connected group members to formal financial services.
     - Over the last two decades, the SBLP has proven to be a great medium for social and economic empowerment for rural women.
     - India has witnessed state-led promotion of SHGs through a three-tiered architecture of community institutions at group, village and cluster levels.
     - In 1999, Government of India, introduced Swarn Jayanti Gram Swarojgar Yojana (SGSY) to promote self-employment in rural areas through formation and skilling of SHGs.
     - The programme evolved as a national movement in 2011 and became National Rural Livelihoods Mission (NRLM).
     - The programme was renamed in November 2015 as Deendayal Antyodaya Yojana (DAY – NRLM).
     - DAY – NRLM now covers 100 million families through 8.5 million SHGs with savings deposit of approx. INR 161 billion.
     - State government initiatives such as Kudumbashree in Kerala and Jeevika in Bihar.

   - **Importance**
     - SHGs have played an important role in enabling financial inclusion in rural areas.
     - It has financially empowered women within the family and in local community.
     - SHGs have the required social and financial capital to expedite India’s economic growth.
     - The Social capital of SHGs could be an asset for solving various social issues in India e.g. gender based discrimination, dowry system, casteism etc.
     - There are many successful cases where SHG women have come together to close liquor shops in their village.
     - Study shows that women in SHGs are more likely to save on a regular basis, have formal loans and scored more on average on the empowerment index.

   - **The Power of Kudumbashree**
     - Workers of the Kudumbasree poverty eradication and women empowerment programme played a big role in clean-up in the Kerala’s flood hit areas.
Around 4,00,000 women of Kudumbashree self-mobilised across the State to do relief work.

The secular composition of Kudumbashree acts as a facilitator for the secularisation of public spaces.

The community farms run by Kudumbashree groups are acknowledged as a critical avenue for the rejuvenation of agricultural production in Kerala.

Kudumbashree training courses are quite comprehensive and include women’s rights, knowledge of constitutional and legal provisions, training in banking practices, and training in skills to set up micro-enterprises.

The Kudumbashree model can be implemented across India, with the same secular and gendersensitive spirit.

2. WTO Issues

- Issues in Agreement on Agriculture (AoA):
  o The AoA seeks to put a limit on the subsidies given by developing and developed countries to their farmers.
  o However, according to the recent OECD report, the developed countries have been giving higher number of subsidies to their farmers as compared to developing countries.
  o Countries such as USA have refused to reduce their farm subsidies, adversely impacting the farmer sector in developing and poor economies.
  o India has been demanding a permanent solution on Public stockholding in order to implement National Food Security Act.
  o At the Bali ministerial conference in December 2013, India secured a “peace clause”.
  o Under it, if India breaches the 10% limit, other member countries will not take legal action under the WTO dispute settlement mechanism.
  o Further, in 2014, India forced developed countries to clarify that the peace clause will continue indefinitely until a permanent solution is found.

- Stringent non-tariff measures (NTMs):
  o Another point of concern is that developed countries design and implement stringent non-tariff measures (NTMs) which exacerbate the problems faced by poor countries that are willing to export.
  o NTMs significantly add to the cost of trading. However, the costs of acquiescence with many NTMs are asymmetrical across exporters because compliance depends on production facilities, technical know-how and infrastructure factors that are usually inadequate in developing economies.
  o These countries are, therefore, unable to compete in international markets and hardly gain from sectors with comparative advantage such as agriculture, textiles and apparels.
  o Developing countries are willing to break the deadlock on these issues and are preparing a common ground to jolt the mandate of the global trade body.
  o India, in particular, seeks amendment of laws on unilateral action by members on trade issues and a resolution of the WTO’s dispute settlement
E-commerce has been a key agenda:
- It was agreed to ‘establish a work programme to examine global e-commerce, with a focus on the relationship between e-commerce and existing agreements.
- The developed countries led by USA have been pushing forward for a comprehensive agreement on Ecommerce under the ambit of WTO.
- As part of this agreement, the developed countries have put forward a number of proposals which include tackling barriers that prevent cross-border sales.
- Addressing forced data localization requirements and permanently banning customs duties on electronic transmissions, among others. India has clearly stated that it is against any binding rules in ecommerce.
- India has time and again stressed the importance and relevance of the WTO for promoting global trade.
- India must do its homework to focus on the unresolved issues and address the newer ones which are of interest to developed nations, mainly investment facilitation.

Today’s WTO crisis might well be the last-ditch battle to retain control over a Western-centric organisation.

The WTO needs to be sustained as countries need an international platform to formulate trade rules and bring convergence on divergent matters.

The time has come for the emerging economies and the developing world to have a greater say in how to shape multilateralism and its institutions.