Economic Survey 2019-20 Summary
Volume II
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State of economy

Global Economy in 2019-20

1. The World Economic Outlook (WEO) update of January 2020 published by International Monetary Fund (IMF) has estimated the global output to grow 2.9% (2019) from 3.6% (2018) and 3.7% (2017).

2. The global output growth in 2019 is estimated to be the slowest since the global financial crisis of 2009, arising from
   a) Decline in manufacturing activity and trade.
   b) Uncertain trade wars

3. The growth of advanced economies has similarly declined from 2.5% in 2017 to 2.2% in 2018 and is estimated to further decline to 1.7% in 2019.

4. WEO has projected the declining growth of global output to rebound in 2020 with a modest uptick to 3.3%.

5. Inflation over the world also remained muted in 2019. Inflation softened in advanced and emerging economies reflecting a slack in consumer demand.

6. The global slack in consumer demand affected industrial activity, especially in automobile industry. It fell sharply due to a decline in demand caused by
   a) Changes in technology
   b) Emission standards in many countries

7. As global industrial activity slowed down, there was a drop in growth of manufacturing exports from major economies.

8. India’s Gross Domestic Product (GDP) growth also correlates with the growth of global output.

9. For three years prior to 2017, when global output growth was not declining, India surged ahead of the rest of the world.

10. The updated WEO has projected the growth of Indian economy to increase to 5.8% in 2020 expecting India to contribute significantly in the growth of world output.

Indian Economy 2019-20

Size of the economy

1. The World Economic Output of October 2019 has estimated India’s economy to become the fifth largest in the world as measured using GDP at current US$ prices.

2. The size of the economy is estimated at US$ 2.9 trillion in 2019.
3. The target of US$ 5 trillion economy by 2024-25 is challenged by less than expected growth of India’s Gross Domestic Product.

![Figure 7: Increasing size of the Indian economy (GDP at current US$)](image)

**Table 1: Top 10 Economies in the world in terms of GDP at current US$ trillion**

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<td>1</td>
<td>United States</td>
<td>19.5</td>
<td>20.6</td>
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<tr>
<td>2</td>
<td>China</td>
<td>12.1</td>
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<td>3</td>
<td>Japan</td>
<td>4.9</td>
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<td>4</td>
<td>Germany</td>
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<td>4.0</td>
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<td>5</td>
<td>India</td>
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<td>United Kingdom</td>
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<td>France</td>
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<td>Italy</td>
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<td>9</td>
<td>Brazil</td>
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<td>10</td>
<td>Korea</td>
<td>1.6</td>
<td>1.7</td>
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Data Source: World Economic Outlook, October 2019 database
Notes: E: IMF's estimate; ▲ indicates improvement in rank; ▼ indicates drop in rank and - indicates unchanged rank

**GVA and GDP growth**

1. The National Statistical Office (NSO) has estimated India’s GDP to have grown at 4.8% in the first half (H1) (April-September) of 2019-20.
2. On the supply side, the deceleration in GDP growth has been contributed generally by all sectors except ‘Agriculture and allied activities’ and ‘Public administration, defence, and other services.’
3. On the demand side, the deceleration in GDP growth was caused by a decline in the growth of real fixed investment.
4. But growth of real consumption picked up in Q2 of 2019-20, mostly driven by a significant rise in government final consumption. Growth of private final consumption also picked up.
5. Lower growth of GDP and softer price of crude oil caused a large contraction of imports.
6. Net FDI and net FPI in first eight months of 2019-20 was more than the inflows in the corresponding period of 2018-19.

**Inflation**

1. In H1 of 2019-20, Headline inflation was estimated at 3.3%, slightly higher than that in H2 of the previous year.
2. The food prices rose due to following **unseasonal rainfall** and a **flood-like situation** in many parts of the country which affected agricultural crop production.
3. The Wholesale Price Index (WPI) inflation declined sharply from 3.2% in April 2019 to 2.6% in December 2019 reflecting **weakening of demand pressure** in the economy.

4. Core inflation also reflects the state of demand in the economy. It also points to a weakening of demand pressure in the economy.

5. As per GDP deflator performance, the core-CPI and WPI inflation together moderated inflation. Deflator fell from 3.7% in H2 of 2018-19 to 2.1% in H1 of 2019-20.

<table>
<thead>
<tr>
<th>GDP deflator</th>
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<td>- It measures the changes in prices for all of the goods and services produced in an economy.</td>
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<td>- It is the ratio of nominal GDP to real GDP, multiplied by 100.</td>
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<td>- Using the GDP deflator helps economists compare the levels of real economic activity from one year to another.</td>
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<table>
<thead>
<tr>
<th>Headline Inflation</th>
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<td>- This inflation measure demonstrates overall inflation in the economy.</td>
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<table>
<thead>
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<th>Core inflation</th>
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<td>- This measure doesn’t consider the prices of highly volatile food and fuel components, which cause unwanted distortion to the headline figure.</td>
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<table>
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<th>Fiscal situation</th>
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<td>1. In 2019-20, Centre’s fiscal deficit was budgeted at 3.3% of GDP as compared to 3.4% of GDP in 2018-19.</td>
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2. In the first eight months of 2019-20, fiscal deficit stood at 114.8% of the budgeted level.

3. Net Tax revenue to the Centre grew at 2.6% during April to November 2019. It was envisaged to grow at more than 25% in 2019-20 BE relative to 2018-19 PA.

4. The decline is primarily owing to **low growth in Gross Tax Revenue** (GTR) of 0.8% during first eight months of 2019-20 vis-a-vis 7.1% growth for the corresponding period in 2018-19.

5. **Goods and Services Tax** (GST) collections is the **biggest component of indirect taxes**. It grew by 4.1% for the Centre during April-November 2019.

<table>
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<th>Monetary policy</th>
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<td>1. The liquidity condition of banks became comfortable after June 2019 and has remained healthy since then.</td>
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2. Average daily net absorption soared from 45.6 thousand crore in June 2019 to 256.4 thousand crore in December 2019.

3. Liquidity injection was undertaken through four open market operation (OMO) purchase auctions and a US$ 5 billion buy or sell swap auction.
**Liquidity Adjustment Facility (LAF) corridor**
It is the spread between the repo and the reverse repo rate.

**Reverse repo rate**
- It is the rate at which the central bank of a country (Reserve Bank of India in case of India) borrows money from commercial banks within the country.
- It is a monetary policy instrument which can be used to control the money supply in the country.

**Repo rate**
- It is the rate at which the central bank of a country (RBI in case of India) lends money to commercial banks in the event of any shortfall of funds.
- Repo rate is used by monetary authorities to control inflation.

**Open market operation (OMO)**
- It is an activity by a central bank to give or take liquidity in its currency (to or from) a bank or a group of banks.

4. The stance of the Monetary Policy Committee of Reserve Bank of India continued to be accommodative as it reduced the policy repo rate.

5. The rate cut along with excess liquidity in banks was expected to transmit well into lowering interest rates. But the transmission has varied across different market segments.

**Credit growth**
1. The growth of bank credit has started decelerating in second half (H2) of 2018-19 and further in H1 of 2019-20.

2. The deceleration was witnessed across all major segments of non-food credit, except personal loans which continued to grow at a steady and robust pace.

3. The deceleration in credit growth was most in the **services sector**. Credit growth to industry witnessed a significant decline in recent months, both for MSME sector and industries.

4. **Agriculture and allied activities** benefited from a **higher growth of credit**.

5. Decline in credit growth has been attributed to growing risk aversion of banks that continue to apprehend the build-up of Non-Performing Assets (NPAs).

6. The risk aversion to lending to the private sector appears to be relatively more in respect of Public Sector Banks (PSBs).

7. The IBC process contributed to reducing the NPAs. But the NPA ratio (9.3%) remained the same till September 2019.

**External sector performance**
1. In Oct-Nov. 2019, major commodity groups have shown a positive growth in exports over the corresponding month of last year while imports of major commodity groups have contracted.

2. The contraction in import was partly contributed by a decline in oil prices in 2019-20 compared to 2018-19 while slower contraction of exports may have resulted from a pick-up in global activity.

3. Despite muted growth of services exports, the trade balance on the services account continued to be positive in 2019-20.

4. The trade surplus on services account has been estimated at US$ 40.5 billion in H1 of 2019-20 as compared to US$ 38.9 billion in 2018-19.

5. Lower Current Account Deficit (CAD) reflects **reduced external indebtedness** of the country making domestic economic policy increasingly independent of external influence.

6. The CAD has improved due to significant reduction in trade deficit.

7. Consequent to the improvement in current account and higher capital flows, the Balance of Payments (BoP) has improved from rise in foreign exchange reserves (US$ 461.2 billion as of January 2020).
Current Account Deficit (CAD)
- It is a measurement of a country's trade where the value of the goods and services it imports exceeds the value of the products it exports.
- It is a component of a country's balance of payments (BOP).

Balance of Payment (BOP)
- It is a statement of all transactions made between entities in one country and the rest of the world over a defined period of time.
- These transactions consist of imports and exports of goods, services and capital, as well as transfer payments, such as foreign aid and remittances.
- The balance of payments divides transactions in two accounts
  a) **Current account** - Includes goods and services, net earnings on cross-border investments and net transfer payments.
  b) **Capital account** - Net capital inflows and capital outflows, borrowing from foreign countries etc.

Sectoral developments
1. A high growth of GDP does not attract much attention to sectoral contribution to growth as much as low growth of GDP does.
2. Share of agriculture and allied sectors in the total GVA of the country has declined from 2009-14 to 2014-19 mainly on account of relatively higher growth performance of tertiary sectors.
3. The contribution of industrial activities to GVA has also declined from 2009-14 to 2014-19.
4. Services sector has moved ahead faster distancing itself further from agriculture and industry.

First Advance Estimates: 2019-20
1. Growth in real GDP during 2019-20 is estimated at 5.0%. Nominal GDP for 2019-20 is estimated at 7.5% over the provisional estimates of GDP.
2. The contribution of total consumption and net exports in GDP at current prices are estimated to increase in 2019-20.
3. Positive signs
   a) NIFTY India Consumption Index picked up for the first time in 2019-20.
   b) Foreign investors continue to show confidence in India.
   c) Repo cuts have led to increase in consumer demand.
   d) Terms of trade for farmers has been improving and will lead to increase in rural consumption.
   e) Industrial activity is on a rebound and is showing signs of pick up.
   f) Growth in merchandise exports has been improving
   g) Forex reserves have reached to US$ 461.2 billion.
   h) Gross GST revenue collected in December 2019 and November 2019 registered a positive growth rate of 9% and 6% respectively.

Recent Growth Deceleration

Slowing Cycle of growth
1. In Virtuous cycle of growth, the increase in the rate of fixed investment accelerates the growth of GDP that in turn induces a higher growth in consumption.
2. Higher growth of consumption improves the investment outlook which results in still higher growth of fixed investment that further accelerates the growth of GDP. It induces a still higher growth of consumption.
3. This virtuous cycle of ‘higher fixed investment-higher GDP growth-higher consumption growth’ generates economic development in the country.
4. When this virtuous cycle rotates slowly, the rate of growth investment gets declined thereby decelerating GDP growth with lag. It causes a deceleration in the growth of consumption as well.

5. In case of India, the lag between rate of fixed investment and its impact on GDP growth is seen to be of three to four years.

6. Similarly, the impact of GDP growth on consumption growth gets reflected in one-two years. So, a contemporaneous comparison of trends of GDP growth and investment is not appropriate.

Decline in fixed investment rate
1. The drop in fixed investment by households explains most of the decline in overall fixed investment between 2009-14 to 2014-19.
2. Fixed investment in the public sector marginally decreased from 7.2% of GDP to 7.1% during the mentioned periods.

Decline in household investment
1. The household sector includes family households as well as ‘quasi-corporates’.

| Unincorporated enterprises belonging to households, which have complete sets of accounts, are called ‘Quasi-corporates’. |

2. Investment in the groups ‘Machinery and equipment’ and ‘Dwellings, other buildings’ together account for more than two-thirds of total household sector investment.
3. Unincorporated household enterprises, in addition to supplying directly for retail consumption, are suppliers to incorporated enterprises from the back end of the value chain.
4. The stagnation in machinery and equipment investment of households is at around 2.4% of GDP from 2011-12 to 2017-18.

Outlook
The likely growth in GDP is assessed through both the downside and upside risks.

Downside Risks
1. Continued global trade tensions can delay the recovery in the growth of global output, which may constrain the export performance of the country.
2. Escalation in US-Iran geo-political tensions may increase the price of crude oil and depreciate the rupee. Net FPI inflows may weaken adding further pressure on the rupee to depreciate.
3. Costlier crude oil may fuel inflationary pressure in the economy. It can cause the growth of private consumption to decline and weaken the inducement to invest.
4. Growth in advanced countries has weakened with very low inflation. The rupee may come under pressure making imports costlier.

5. **Leakage from the domestic circular flow of income** may increase which may adversely impact private consumption and investment.

6. The **slow-paced implementation of IBC Code** may not reduce the risk aversion of banks to lend further. So, **private investment may remain muted**.

7. Investment in the public sector may increase. If this leads to **expansion of fiscal deficit**, bond yields may increase, possibly crowding out private investment.

8. A **non-rising gross domestic savings rate** may further deteriorate the CAD, depreciate the rupee and make the virtuous cycle more difficult to realize.

**Upside Risks**

1. There are tentative signs that manufacturing activity and global trade are rising from bottom. This may positively impact India’s exports.

2. Higher investment in housing by households may increase the fixed investment in the economy.

3. Existing unsold housing inventory can be cleared and the balance sheets of lenders cleaned if the real estate developers are willing to take a ‘hair-cut’ by allowing the house-prices to drop.

**Haircut**

- It is the difference between the current market value of an asset and the value ascribed to that asset for purposes of calculating regulatory capital or loan collateral.
- The amount of the haircut reflects the perceived risk of the asset falling in value in an immediate cash sale or liquidation.

4. Global sentiment continues to favour India as reflected in robust and rising inflows of net FDI into the country.

5. National Infrastructure Pipeline (NIP) may further increase FDI inflows into the country in both brown-field and green-field infrastructure projects.

**Brownfield investments** occur when an entity purchases or leases an existing facility to begin new production.

**In a greenfield investment**, the entity begins a new venture by constructing new facilities rather than using existing facilities.

6. Continuous **relaxation of FDI guidelines** may address the concerns of foreign investors and improve the investment climate.

7. A boost to **Make in India** may not only enhance exports but replace imports of products in which India has sufficient scope for **expansion in domestic manufacturing**.

8. India has been making steady progress in improving its rank in the Ease of Doing Business, assessed for about 190 countries by the World Bank.

9. As the implementation of **GST** further settles down, the increased unification of the domestic market may reduce business costs and facilitate fresh investment.

10. Reforms in land and labour market may reduce business costs. Reduction in the base corporate tax rate may increase the rate of return on investment and encourage a surge in new investments.

11. **Merger of public sector banks** may increase the financial strength of the merged entities, lower the risk aversion and result in lowering of lending rates.

**Projection of GDP growth**

1. GDP growth of India should strongly rebound in 2020-21 and more so on a low statistical base of 5% growth in 2019-20.

2. India’s GDP growth is expected to grow in the range of 6.0 to 6.5% in 2020-21.
Fiscal Developments

Central Government Finances
1. The Union Budget 2019-20 sought to contain the fiscal deficit at 3.3 per cent of the GDP.
2. Among the major fiscal indicators of the Central Government there was
   a. improvement in the tax to GDP ratio and
   b. reduction in primary deficit as a per cent of GDP.

Trends in Receipts
1. Central government receipts can broadly be divided into Non-debt and debt receipts.
2. The Non-debt receipts comprise of Tax revenue, Non-Tax revenue and Non-debt Capital receipts like recovery of loans and disinvestment receipts.
3. Debt receipts mostly comprise of market borrowings and other liabilities, which the government is obliged to repay in the future.

Tax Revenue
1. The Gross Tax Revenue (GTR) was estimated in the previous budget to be 11.7 per cent of GDP.
2. The direct taxes, comprising mainly of corporate and personal income tax, constitute around 54 per cent of GTR in 2019-20 which has improved over the last few years.
3. Better tax administration, widening of TDS carried over the years, antitax evasion measures and increase in effective taxpayers base due to increase in the number of indirect tax filers in the GST regime has also led to improved tax buoyancy.

Figure 3: Composition of taxes in Gross Tax Revenue in 2019-20 BE

Non-Tax Revenue
1. Non-Tax revenue comprises mainly of
   a. interest receipts on loans to States,
   b. dividends and profits from Public Sector Enterprises including surplus of Reserve Bank of India (RBI) transferred to Government of India,
   c. receipts from services provided by the Central Government and external grants.
Non-debt Capital receipts
The receipts from recovery of loans and advances have been declining over the years and are pegged at 12.4 per cent of Non-debt Capital.

Trends in Expenditure
1. Low tax to GDP ratio pose a challenge in funding investment and infrastructure expansion within the bounds of fiscal prudence.
2. Government expenditure in the last few years reveals that expenditure on defence services, salaries, pensions, interest payments and major subsidies account for more than 60% of total expenditure.
3. So, improving the composition and quality of expenditure becomes significant.
4. Budgetary expenditure on subsidies has seen significant moderation through improved targeting.
5. There has been considerable restructuring and reclassification of Central sector and Centrally Sponsored Schemes in the recent years.
6. The quality of expenditure is captured by the share of capital expenditure in total expenditure which has dropped by 1% in 2019-20 from 2018-19.
7. Major capital expenditures include Defense services, Internal security, investments in Financial Institutions, pass through assistance for metro projects, space technology and construction of Roads and Railways.

Transfer to States
1. Transfer of funds to States comprises essentially of three components:
   a. share of States in Central taxes devolved to the States,
   b. Finance Commission Grants and
   c. Centrally Sponsored Schemes (CSS) and other transfers.
2. From 2014-15, direct transfers to State implementing agencies were discontinued and all transfers to States including for the CSS were routed through the Consolidated Funds of the States.
3. Both in absolute terms, and as a percentage of GDP, total transfers to States have risen by 1.2% of GDP.
4. It is expected to increase on account of higher requirements under compensation to States for revenue losses on roll out of GST, grants to rural and urban bodies and releases under Samagra Shiksha.

Fiscal outcome in 2019-20
1. Indian economy registered a sluggish growth during first half of 2019-20.
2. A series of measures were introduced by the Government during the financial year to boost the economy.
3. Despite the rationalization of GST rates, the gross GST monthly collections have been consistent.
4. The increase in GST collections are a result of concerted efforts taken by the government to improve tax compliance and Tax revenue collection. These include
   a. extensive automation of business processes,
   b. application of e-way bill mechanism,
   c. targeted action on compliance verification,
   d. enforcement based on risk assessment and
   e. proposed introduction of electronic invoice system.
f. several initiatives to incorporate behavioural parameters to induce voluntary compliance by taxpayers.

**Figure 8: Growth rate of fiscal indicators in 2019-20 (upto November 2019)**

**Major reform in corporate taxation**

1. The Government announced a major cut in the corporate income tax (CIT) rate applicable to the domestic companies.
2. The existing companies have been given an option to forego certain deductions and exemptions availed under the Act and choose a new CIT rate structure.
3. It has a maximum marginal rate (MMR), inclusive of surcharge and cess, of 25.17 per cent as against the existing MMR of 34.61 per cent.
4. In order to give boost to the manufacturing sector, the new manufacturing companies registered on or after 1.10.2019 have been given an option to choose a CIT rate with MMR of 17.16 per cent.
5. It is expected that this would spur investment, stimulate growth and create job opportunities in India.

**Central Government Debt**

1. Total liabilities of the Central Government include debt contracted against the Consolidated Fund of India (Public Debt), as well as liabilities in the Public Account.
2. These liabilities include external debt at current exchange rate.
3. But it excludes part of National Social Security Fund (NSSF) liabilities to the extent of States’ borrowings from the NSSF and investments in public agencies out of the NSSF, which do not finance Central Government deficit.
4. Central Government debt is characterised by low currency and interest rate risks.
5. This is due to
   a. fixed interest rate,
   b. low share of external debt in the debt portfolio and
   c. almost entire external borrowings being from official sources.

**State finances**

1. The States’ combined own Tax revenue and own Non-Tax revenue is anticipated to grow at 11.1 per cent and 9.9 per cent respectively, which is low relative to the robust growth.
2. The fiscal consolidation of the States in the last five years is due to the steep decline in capital expenditure, which may have adverse implications for the pace and quality of economic development.
3. The debt to GDP ratio for States has risen since 2014-15 owing to the issuance of UDAY bonds in 2015-16 and 2016-17, farm loan waivers, and the implementation of Pay Commission awards.
Outlook
1. The year 2020-21 is expected to pose challenges on the fiscal front.
2. On one hand, the outlook for global growth persists to be weak, with escalated trade tensions adding to the risk.
3. On the other hand, the pace of recovery of growth will have implications for revenue collections.
4. In order to boost the sluggish demand and consumer sentiments, counter-cyclical fiscal policy may have to be adopted.
5. On the expenditure side, rationalisation of subsidies especially food subsidy could be an important tool.
6. Also, the geopolitical situation of West Asia is likely to have implications for oil prices and thereby on the petroleum subsidy, apart from having implications for current account balance.
External Sector

1. India’s Balance of Payments (BoP) improved from US$ 412.9 billion of forex reserves in end March, 2019 to US$ 433.7 billion in end September, 2019.

2. In sync with an estimated 2.9 per cent growth in global output in 2019, global trade is estimated to grow at 1.0 per cent after having peaked in 2017 at 5.7 per cent. However, it is projected to recover to 2.9 per cent in 2020 with recovery in global economic activity.

3. India’s merchandise trade balance has improved from 2009-14 to 2014-19 although most of the improvement in the latter period was on account of more than fifty per cent decline in crude prices in 2016-17.

4. Petroleum products, precious stones, drug formulations & biologicals, gold and other precious metals continue to be top exported commodities.

    a. Crude petroleum, gold, petroleum products, coal, coke & briquettes constitute top import items. India’s top five trading partners continue to be USA, China, UAE, Saudi Arabia and Hong Kong.

5. India’s net services surplus has been steadily declining in relation to GDP. It financed two-thirds of merchandise deficit in 2016-17 before declining to less than half in the last couple of years.


7. The logistics industry of India is currently estimated to be around US$ 160 billion and is expected to touch US$ 215 billion by 2020.

8. Net remittances from Indians employed overseas has been constantly increasing year after year and has continued doing so with the amount received in H1 of 2019-20 being more than fifty per cent of the previous year level.


9. External debt as at end September, 2019 remains low at 20.1 per cent of GDP. India’s external liabilities (debt and equity) to GDP has increased at the end of June, 2019 primarily driven by increase in FDI, portfolio flows and external commercial borrowings (ECBs).

INDIA’S BALANCE OF PAYMENTS

1. Almost synchronous with the acceleration in GDP growth to 7.5 per cent in 2014-19, the Balance of Payments (BoP) position of India improved from accumulated foreign reserves of US$ 304.2 billion at end of 2013-14 to US$ 412.9 billion at end of 2018-19.

2. For an open emerging market economy like India, improvement in BoP position is critical.

3. It ensures financing of essential imports like crude oil and other such inputs that drive the manufacturing sector which provides livelihood to crores of people in the country.

4. For a country that has mostly remained in current account deficit, injecting into its income stream not as much earnings from abroad as permitting leakage from it through payments overseas, a continuous improvement in its BoP position is a reflection of a global sentiment that increasingly believes in India’s growth story.

5. This belief will hold the country in good stead when it looks to access foreign savings to meet the investment requirement for a US$ 5 trillion-economy.

6. The weakening of the GDP growth poses a challenge to both net FDI and net FPI inflows in improving the BoP position of the country.

7. Should such inflows become smaller on the back of growing pessimism on India’s prospective growth, the BoP position may worsen making access to foreign savings much more difficult in times to come.

8. An increase in CAD as a ratio to GDP worsens the BoP by drawing down on forex reserves or building the potential to worsen it by increasing the external debt burden.
9. The backup to CAD is the forex reserves with increase in CAD/forex ratio reflecting the decreasing strength of the backup. The decreasing strength spills into depreciating the currency.

10. Merchandise trade deficit is the largest component of India’s current account deficit, significantly impacting the BoP position.

11. Over the recent years, the escalation of global trade tensions leading to slowdown in world trade has increased the fragility of India’s trade deficit with the potential of worsening the BoP.

12. The slowdown of world trade reflects a confluence of factors, including a slowdown in investment, reduced spending on heavily traded capital goods and a sizable decline in trade in cars and car parts.

13. On average, India’s merchandise trade balance has improved from 2009-14 to 2014-19, although most of the improvement in the latter period was on account of more than fifty per cent decline in crude prices in 2016-17.

14. Lately the improvement in trade balance has positively contributed to the improvement in BoP position.

15. On average, India’s merchandise trade balance has improved from 2009-14 to 2014-19, although most of the improvement in the latter period was on account of more than fifty per cent decline in crude prices in 2016-17.

16. Lately the improvement in trade balance has positively contributed to the improvement in BoP position.

17. India’s top 10 trading partners during 2019-20 (April-November) jointly account for more than 50 per cent of India’s total merchandise trade.

**Net terms of trade (NTT)**

Net terms of trade (NTT) of a country is the ratio of unit value index of export to that of import. Exports plus imports from a trade partner as a share of total imports plus exports of India determines the share of the trade partner in India’s merchandise trade.
Trade surplus/deficit

1. With two top trading countries i.e. USA and United Arab Emirates, India has consistently run trade surplus since 2014-15.

2. On the other hand, India has trade deficit continuously since 2014-15 with respect to other major trading partners i.e. China PRP, Saudi Arabia, Iraq, Germany.

3. An increase in merchandise exports to GDP ratio has a net positive impact on BOP position.

4. Over the years the merchandise exports to GDP ratio has been declining, entailing a negative impact on the BoP position.

5. The slowdown of world output has definitely had an impact on reducing the export to GDP ratio.

6. The appreciation in the real exchange rate has also contributed to the declining exports to GDP ratio.

7. The impact on India’s exports of a slowdown in world output and appreciation of India’s real exchange rate has been an outcome of increasing integration of India’s exports with global value chain.

8. The integration with the global value chain has increased following a relatively higher growth in manufacturing exports.

9. In view of government’s growing emphasis on “Make in India” programme, increase in the share of manufacturing exports in total exports is inevitable.

10. Petroleum, Oil and Lubricants (POL) exports have a dominant share in India’s export basket.

11. However, since petroleum exports are a value-added pass through of petroleum imports, exports net of POL exports reflects how broad-based India’s exports are in generating value addition in the country.
Export destinations

1. India’s largest export destination country continues to be the United States of America (USA) in 2019-20, followed by United Arab Emirates (UAE), China and Hong Kong. Between 2011-12 and 2019-20, India’s exports to USA grew the highest.

Imports

1. An increase in the merchandise imports to GDP ratio has a net negative impact on the BoP position. Over the years the ratio has been declining for India entailing a net positive impact on the BoP position.
2. Crude oil imports have a large presence in the import basket that correlates India’s total imports with crude prices. Evidence also bears this out.
3. As crude price rises so does the share of crude in total imports that increases imports to GDP ratio.
4. Gold imports also have a significant presence in the import basket that correlates India’s total imports with gold prices.
5. Although a fall in merchandise imports to GDP ratio entails a net positive impact on the BoP position, it may be a reflection of a deceleration in GDP growth.
6. Non-pol-nongold imports are understood to be positively correlated with GDP growth.
7. In the import basket of 2019-20, crude petroleum had the largest share followed by gold and petroleum products.

![Commodity-wise Composition of Imports in (By Share in Per cent)](image)

8. China continues to be the largest exporter to India followed by USA, UAE and Saudi Arabia. In recent times, Hong Kong, Korea and Singapore have also emerged as significant exporters to India.

9. In the presence of high custom duties, the impact of acceleration in the growth of GDP on increasing non-pol-non-gold imports is somewhat muted, which limits the worsening impact on BoP.

10. On the other hand, when GDP growth decelerates, high tariffs amplify the impact on lowering non-pol-non-gold imports thereby making a more than proportionate improvement in BoP.

11. In this regard, India has also benefitted with tariff levels steeper than that in other countries. Net services as a proportion of GDP reflect the net impact of service exports and imports on BoP. India’s net services surplus has been steadily declining in relation to GDP.

12. The surplus on net services has been significantly financing the merchandise trade deficit.

13. Given a steady decline in net services to GDP ratio, the extent of financing will steadily fall unless merchandise trade deficit improves in relation to GDP.

14. An increase in service exports to GDP ratio has a net positive impact on the BoP position.

15. India’s service exports have however consistently hovered between 7.4 to 7.7 per cent of GDP reflecting the steadiness of this source in contributing to the stability of BoP.

16. An increase in service imports to GDP ratio has a net negative impact on the BoP position. Over the years, service imports in relation to GDP has been steadily rising putting pressure on BoP to worsen.

17. However, increase in service imports to GDP ratio is inevitable given a rising level of FDI and a gradual upscaling of the Make in India program.

**India and WTO**

1. India hosted a WTO Ministerial Meeting of Trade Ministers on 13-14 May 2019 in New Delhi wherein sixteen developing and six least developed countries along with the DG, WTO participated to deliberate on matters of concern to the member countries.

2. The meeting culminated in an outcome document, which lays out priorities for developing countries in various areas and envisages addressing the challenges being faced by the Dispute Settlement system of the WTO.

3. India has also been working collectively with other developing countries and has submitted a paper in the General Council meeting of the WTO spelling out the priorities that are required to be taken into consideration while undertaking reforms in the WTO.
4. The submission calls for preservation of core principles of the Multilateral Trading System, safeguarding special and differential treatment provisions, resolution of the Appellate Body crisis, addressing unilateral actions and continuation of negotiations in mandated areas, among others.

5. In particular, India has emphasized that special and differential treatment provisions are essential for better integration of the developing countries in the global trading system. These provisions are at the core of the WTO and must be preserved.

6. In addition, a submission on transparency and notification requirements at the WTO has also been made by India along with other WTO members including Cuba, African group.

7. The submission outlines that transparency should be a common thread running in all the operations of the WTO.

8. Developing countries including the least developed countries, who are already resource/capacity constrained should not be penalized in the name of improving transparency.

9. The twelfth Ministerial Conference of the WTO (MC12) is scheduled to be held in June 2020 in Nur-Sultan, Kazakhstan.

10. Discussions for an outcome at MC12 are underway at various informal Ministerial meetings and regular meetings at the WTO.

11. Despite wide divergences among members in the positions taken by them in different areas of negotiation, India is regularly engaging with members with a view to find solutions which addresses the issues of concern to the larger membership of the WTO.

12. India has, time and again, underscored the need of a permanent solution in public stockholding for food security programmes. There has, however not been constructive engagement in this area of negotiation.

13. Besides, India is also fully engaged in the fisheries subsidies negotiations in the WTO and considers safeguarding the interests of poor, small and artisanal farmers as a priority in the negotiations.

14. India has bilateral trade arrangements with many major regional groupings/ countries.

**Trade Facilitation**

1. India ratified the WTO Agreement on Trade Facilitation (TFA) in April 2016 and subsequently constituted a National Committee on Trade Facilitation (NCTF) to commence the implementation.

2. In order to optimize the gains of trade facilitation, National Trade Facilitation Action Plan (NTFAP 2017-20) containing specific activities to further ease out the bottlenecks to trade was released on 20th July, 2017 with an overall vision of the Government to see India as an active facilitator of trade.

3. Since then, the NCTF has played an important role in reducing the high cost of imports and exports so as to integrate the country’s cross-border trade with the global value chain.

4. As a result of consistent trade facilitation efforts, India has improved its ranking from 143 in 2016 to 68 in 2019 under the indicator, “Trading across Borders”, which is monitored by World Bank in determining the overall ranking of around 190 countries in its Ease of Doing Business Report.

5. Sub-parameters of indicator “Trading Across Borders” namely time and cost required to comply with documentary requirement and border requirement for export and import have shown significant improvement since India ratified the WTO’s trade facilitation agreement in 2016.

6. Further, in order to achieve cargo release time targets, India is undertaking a national level **Time Release Study (TRS)** for the first time in 2019 across multiple locations covering seaports, Inland Container Depots (ICDs), air cargo complex and integrated check posts.

7. The intended objectives of national TRS are to assess impact of extant measures to reduce release time, examine extant procedures, technologies and infrastructure and administrative concerns and thereby identify manual processes and physical touchpoints, bottlenecks and inefficiencies (by stakeholders) to bring down the overall release time.

8. Consequent improvement in ranking of India under the indicator “Trading across Borders” include the following:
   a. Enablement of Single Window Interface for Facilitating Trade (SWIFT) on Customs Portal,
   b. Enablement of post clearance audit,
   c. Self e-sealing through RFID tag by trusted exporters,
   d. Requirement of only 3 mandatory documents for import/export,
   e. Introduction of ‘E-Sanchit’ for lodging supporting documents online,
f. Tracking of imported cargo clearance time through Indian Customs Ease of Doing Business Dashboard (ICEDASH),

g. 24X7 online customs clearance facility,
h. Elimination of merchant overtime fees,
i. Launch of Atithi mobile App for international passengers and
j. Elimination of merchant overtime fees and installation of drive through scanners.
k. New schemes like Direct Port Delivery (DPD) for imports and Direct Port Entry (DPE) for exports are facilitating faster clearances at the ports.

9. Up-gradation of port infrastructure, putting up new scanners at ports, development of robust risk based measures and introduction of new Port Community System at all major ports, have led to improvement in average dwell time at sea ports. New initiatives like ‘Turant’4 customs will make customs clearance faster and faceless.

10. In a recently released UN global survey on digital and sustainable trade facilitation 2019, India has not only improved its overall trade facilitation score from 69 per cent to 80 per cent but also outperformed other countries in the Asia-pacific and South and South-west Asia region.

### Major Schemes for Export Promotion

1. **Merchandise Exports from India Scheme (MEIS):**
   a. Introduced w.e.f. 01.04.2015, the objective of MEIS is to offset infrastructural inefficiencies and associated costs involved in exporting goods/ products which are produced/ manufactured in India.
   b. The scheme incentivizes exporters in terms of Duty Credit Scrips at the rate 2, 3, 4, 5, 7 per cent of Free On Board (FOB) value of exports realized.
   c. These scrips are transferable and can be used to pay certain Central Duties/ taxes including customs duties.
   d. The scheme covers exports of more than 8000 tariff lines.
   e. The process from application till final issuance of the MEIS scrip is digitized end to end, without any manual interface for more than 99 per cent of HS Codes on which MEIS is eligible.

2. **Services Exports from India Scheme (SEIS):**
   a. Under this scheme, rewards on Net foreign exchange earnings, to service providers of notified services who are providing service from India to the rest of the World, in the form of Duty Credit scrips are available.
   b. The scrips, just like MEIS are transferable and can be used to pay certain Central Duties/ taxes including customs duties.
   c. The service exporters are eligible for SEIS at the rate of 5 per cent and 7 per cent of the Net Foreign Exchange Earnings (NFEE) for exports made in a Financial Year.
   d. Export Promotion Capital Goods (EPCG) Scheme: This Scheme allows exporters to import capital goods (except certain specified items under the Scheme) for pre-production, production and post-production at zero customs duty.
   e. In return, the exporters are required to fulfill the export obligation to the tune of six times the import duties, taxes and cess saved amount on capital goods, to be fulfilled in six years from date of issue of the Authorization.
   f. Capital goods imported under EPCG authorizations for physical exports are also exempt from Integrated Goods and Services Tax (IGST) and Compensation Cess, at present up to 31.03.2020.

3. **Advance Authorization Scheme:**
   a. Advance Authorization (AA) is issued to allow duty free import of inputs, which are physically incorporated in export products (making normal allowance for wastage). In addition, fuel, oil, catalyst which are consumed/ utilized in the process of production of export products are also be allowed.
   b. Duty Free Import Authorization (DFIA): Duty Free Import Authorization (DFIA) is issued on post export basis for products for which Standard Input Output Norms (SION) have been notified. One of the objectives
of the scheme is to facilitate transfer of the authorization or the inputs imported as per SION, once export is completed. Provisions of DFIA Scheme are similar to Advance Authorization Scheme.

4. Interest Equalization Scheme (IES):
   a. The scheme came into effect from 01.04.2015 for a period of 5 years. This scheme is being implemented by the DGFT through Reserve Bank of India (RBI) for pre and post Shipment Rupee Export Credit.
   b. Under the Scheme, interest equalization @ 3 per cent per annum has been made available to eligible exporters.
   c. The interest equalization rate has been increased from 3 per cent to 5 per cent for exports made by MSME sector under the ongoing Interest Equalization Scheme (IES) on Pre and post Shipment Rupee Export Credit.
   d. The merchant exporters have also been included at the interest equalization rate of 3 per cent under this scheme w.e.f. 02.01.2019.

5. Export Oriented Units (EOU)/Electronic Hardware Technology Park (EHTP)/Software Technology Parks (STP)/Bio-Technology Parks (BTP) Scheme:
   a. The objectives of these four schemes, i.e.; Export Oriented Units (EOU), Electronic Hardware Technology Park (EHTP), Software Technology Parks (STP) and Bio-Technology Parks (BTP) Scheme; are to promote exports, enhance foreign exchange earnings, attract investment for export production and employment generation.
   b. The units undertaking to export their entire production of goods and services (except permissible sales in DTA) may be set up under the schemes.
   c. Trading units are not covered under these schemes.
   d. Under this scheme, the EOU etc. are permitted to import and/ or procure from DTA or bonded warehouse in DTA or from international exhibition held in India till 31.03.2020 (as provided by GST Council and notifications issued there under) without payment of customs duty.

6. Deemed Exports Scheme:
   a. Deemed Exports refers to those transactions in which the goods supplied do not leave the country and the payment for such supplies is received either in Indian rupees or in free foreign exchange.
   b. Under the scheme of deemed exports, exemption/ refund of duties on the goods manufactured and supplied to specified categories of deemed exports as given under the Foreign Trade Policy (FTP) is provided to ensure a level playing field to domestic manufacturers.
   c. The benefits under the Scheme are duty exemption, refund of terminal excise duty, refund of duties suffered by the inputs utilized in manufacture and supply of the goods to the specified categories of deemed exports.
   d. Under the GST regime, the Duty Drawback is limited to exemption/ refund of basic custom duties.

7. Transport and Marketing Assistance (TMA) for Specified Agriculture Products Scheme:
   a. To mitigate disadvantage of higher cost of transportation of export of specified agriculture products due to trans-shipment and to promote brand recognition for Indian agricultural products in specified overseas markets, the “Transport and Marketing Assistance” (TMA) scheme for specified agriculture products was launched in February, 2019 and is available for exports occurring from 01.03.2019 to 31.03.2020.

8. Trade Infrastructure for Export Scheme (TIES):
   a. The Government of India has launched a scheme namely, Trade Infrastructure for Export Scheme (TIES), from FY 2017-18 with the objective to assist Central and State Government Agencies for creation of appropriate infrastructure for growth of exports from the States.
b. The Scheme provides financial assistance in the form of grant-in-aid to Central/State Government owned agencies for setting up or for upgradation of export infrastructure as per the guidelines of the Scheme.

c. Establishment of facility for the identification of origin and authenticity at Export Inspection Agency, Mumbai and Construction of office-cum-lab complex of EIA Chennai SO Visakhapatnam are two projects approved under TIES.

![Figure 24: India’s performance in Digital and Sustainable Trade Facilitation, in comparison to Asia-Pacific and South and South-West Asia (2019)](image)

**Trade related Logistics**

1. Indian logistics sector is riding a growth wave and is a sunshine industry. According to estimates, Indian logistics sector is expected to grow at 8-10 per cent over the medium term.

2. The logistics industry of India is currently estimated to be around US$ 160 billion and is expected to touch US$ 215 billion by 2020.

3. The Indian warehousing and logistic market received around US$ 3.4 billion of institutional capital over the last few years (January 2014 - January 2018).

4. Investments into the warehousing sector account for around 26 per cent of the total private equity investments into real estate during this period.

5. Many new startups are coming up in logistics eco-system with already 350 startups registered in Logistics.

6. Agri-logistics is also attracting attention. Solar powered micro cold stores are being developed and app based grading facilities are being created.

7. Startups are also working on providing solution to making vehicles more fuel-efficient and environment friendly.

8. In terms of job creation, experts predict that logistics sector can be the largest job creator by 2022. The sector currently provides employment to more than 22 million people in the country.


10. The top 5 countries in the world in Logistics Performance Index (LPI) are shown along with India, with their rankings in LPI and each separate indicator.
Measures by Government

1. To improve trade logistics, Government is building infrastructure through ambitious projects like the Bharatmala, Sagarmala and the Dedicated Freight Corridors.

2. Inland waterways are being developed as a cost effective means of transportation.

3. Multimodal logistic parks are being created to promote multimodal transportation.

4. These are part of the infrastructure project pipeline worth `102 lakh crore whose details have been released by government in December, 2019. The infrastructure projects will be created over the next five years.


6. Major commodities have been identified and will be encouraged to be transported by the cheapest mode.

7. Movement by other modes like railways, coastal, waterways and slurry pipelines are being promoted through infrastructure and policy interventions.

8. Fast-tags have been made mandatory to cut delays at toll plazas.

9. Qualification packs have been created to improve skilling in the sector. Apprentice programmes are being promoted through industry participation. Standards are being developed to bring in efficiency.

10. The government’s focus going forward is to bring down the cost of logistics which will boost the competitiveness of our manufacturing sector.

11. Driving logistics cost down from estimated current levels of 13-14 per cent of GDP to 10 per cent in line with best-in class global standards is essential for India to become globally competitive.

Anti-dumping and Safeguard Measures

1. India conducts anti-dumping investigations on the basis of applications filed by the domestic industry with prima facie evidence of dumping of goods in the country, injury to the domestic industry and causal link between dumping and injury to the domestic industry.

2. The countries involved in these investigations are China PR, Hong Kong, Korea, Germany, EU, USA, Malaysia, South Africa, Thailand, Brazil, among others.

3. In its efforts to promote transparency, efficiency and expedited relief to the domestic producers, DGTR has introduced online portal to submit online petitions for different trade remedies like anti-dumping duty, safeguard duty and countervailing duty.

a. The portal is named ARTIS (Application for Remedies in Trade for Indian industry and other Stakeholders).

b. Applicants can monitor the current status of their applications through online portal.

4. Outreach programmes to sensitize various stakeholders about the available Trade Remedy Measures are being conducted by officers of DGTR from time to time.

5. A Help Desk & Facilitation Centre has been established to facilitate optimal utilization by different stakeholders of available trade remedial measures aimed at curbing ‘unfair trade’.

Net Remittances

1. An increase in net remittances improves the BoP position.

2. Net remittances from Indians employed overseas has been constantly increasing year after year and has continued doing so with the amount received in the first half of 2019-20 being more than 50 per cent of the total receivables in 2018-19.
3. The pro-cyclicality of India’s remittances with respect to crude oil price movements has been established empirically by various studies including the Economic Survey 2016-17.
4. Because of this link, remittances had fallen in 2016-17 when crude prices had significantly declined.
5. The Migration Report 2019 released by the United Nations has placed India as the leading country of origin of international migrants in 2019 with a diaspora strength of 17.5 million.
6. Further, as per the October 2019 report of World Bank, India remained the top remittance recipient country in 2018, followed by China, Mexico, the Philippines and Egypt.

**Foreign Direct Investment (FDI)**

1. Net FDI in the first eight months of 2019-20 stood at US$ 24.4 billion. An increase in net FDI improves the BoP position.
2. The impressive improvement in BoP position from March, 2014 to March, 2019 is mainly attributed to almost doubling of net FDI into the country from 2009-14 to 2014-19.
3. Net FDI inflows have continued to be buoyant in 2019-20 attracting in the first half itself an amount more than 50 per cent of the previous year level (Table 17). Continuous liberalization of
4. FDI guidelines has been responsible for rising inflows of foreign investment into the country.
5. An increase in net FDI also provides a more stable source of funding the CAD and in that sense provides greater stability to the improvement in BoP position as compared to other capital inflows.
6. Net FDI’s financing of CAD in the first half of 2019-20 has been higher than the same period of 2018-19 (Figure 26).

**Foreign Portfolio Investment (FPI)**

1. Net FPI in the first eight months of 201920 stood at US$ 12.6 billion. An increase in net FPI flows improves the BoP position and arises on account of cross-border transactions involving debt or equity securities, other than those included in direct investment or reserve assets.
2. However, FPI is often referred to as “hot money” because of its tendency to flee at the first signs of trouble in an economy or improvement in investment attractiveness elsewhere in the world, particularly in the US at the hands of the Federal Reserve.
3. In 2018-19, there was a net portfolio outflow from the country that was seen as weakening of confidence of investors in India’s economy.
4. However, portfolio flows in H1 of 2019-20 have turned positive which could be attributed to the dovish monetary policy stance of the US, enhanced liquidity in global markets and reinforced growth prospects for India post budget announcements and reform measures.
5. The debt-equity composition of net FPI matters in terms of impacting servicing of external debt. A lower debt component reduces the debt servicing burden and improves the BoP position.
6. In recent quarters until Q1 of 2019-20, a change in the composition of FPI flows towards more non debt creating equity and investment funds is discernible.
7. However, on the flip side increase in investment in debt instruments is important to deepen the debt market in the country.
8. A report on assessment of India’s BoP in 2018-19 published by RBI in November, 2019 stated that the highest FPI outflow in the debt segment took place from the sovereign sector (i.e., G-Secs).
9. In this regard the recent policy initiatives of enhancing investment limits of FPIs in government securities and easing of minimum residual maturity are likely to boost FPI flows.
10. In April, 2018, RBI revised the limit for FPI investment in central government securities (G-secs) wherein the limit would be increased by 0.5 per cent each year to 5.5 per cent of outstanding stock of securities in 2018-19 and 6 per cent of outstanding stock of securities in 2019-20.

**External Commercial Borrowings (ECBs)**

1. An increase in net ECBS improves the BoP position but it worsened the BoP by turning negative during 2014-19, from a healthy positive level in 2009-14.
2. In 2018-19 however there was a surge in net ECB inflows and almost a matching amount has already flown into the country in the first half of 2019-20.
3. While domestic bank credit growth has remained subdued in recent years, credit through the ECB route has witnessed significant growth since 2017-18.
4. The increasing preference of corporates for the ECB route may be attributed to low global interest rates and improved liquidity overseas.

5. In addition, a host of measures introduced recently by the government towards
   a. liberalization of ECBs,
   b. rationalisation of all-in-cost of ECBs,
   c. expansion of list of eligible borrowers,
   d. removal of sector-wise borrowing limits for all eligible borrowers up to US$ 750 million and
   e. approval of oil marketing companies to raise up to US$ 10 billion for working capital, has increased the attractiveness of ECBs.

6. The availability of ECB avenue and an increasingly easier one at that raises a question mark on the assertion that increase in fiscal deficit crowds out private investment for want of funds.

7. In an open economy foreign savings are always available and India has benefited from that by attracting FDI and ECBs.

8. In this regard if fixed corporate investment rate during 2014-19 did not rise it was not because government was crowding out the corporate sector by pre-empting commercial bank credit.

9. For had that been the reason, the corporate sector could have easily accessed ECBs as it did post 2017-18.

10. In an open economy framework a rising fiscal deficit gives rise to two problems.
   a. First, it increases the domestic cost of capital tempting corporates to invest their surplus in the domestic market while seeking to finance their investment through ECBs. Low interest rate abroad plus the cost of hedging turns out to be lower than the domestic cost of capital.
   b. Second, as higher fiscal deficit pushes corporates into seeking larger amounts of foreign savings, the CAD widens, bringing the country closer to the twin-deficit challenge, wherein even a small loss of investor confidence can result in capital flight and sharp depreciation of the rupee.
   c. In this situation a default on the BoP becomes highly probable.

**External Debt**

1. An increase in external debt to GDP ratio increases debt servicing and draws down on forex reserves worsening BoP position.

2. India’s external debt remains low as compared to the average external debt to GDP ratio of all developing countries (25.6 per cent) according to World Bank’s International Debt Statistics, 2020.

3. A rising share of short-term debt makes the BoP position more vulnerable because of relatively higher rates of interest on such borrowings.

4. However, a contraction of short term debt is visible in the falling share of short term debt (with original maturity of up to one year) in total external debt since 2012-13.

5. At a time when exports are not growing rapidly, loans at high interest rates can create pressure on BoP in the future.

**External liabilities (Debt + Equity)**

1. External liabilities (Debt + Equity)/ GDP ratio is a more comprehensive measure of external liabilities as it adds dividend payout to debt servicing.

2. A rise in this ratio draws down to a greater extent the forex reserves and worsens the BoP position. A recall of equity investment, both under FPI and FDI can increase the vulnerability of BoP position.

3. India’s external liabilities to GDP

**Net International Investment Position (NIIP)**

1. NIIP measures the gap between a nation’s stock of foreign assets and foreigner’s stock of that nation’s assets at a specific point in time.

2. Changes in NIIP/GDP ratio nets out the impact of investment made by the country abroad from the external liabilities borne by the country thereby measuring the net changes in the debt and equity servicing burden in relation to GDP.

3. The surge in net FDI inflows has worsened the absolute NIIP level from 2009-14 to 2014-19. However, in relation to GDP the burden has reduced and so has the debt and equity servicing obligations.
OUTLOOK

1. After witnessing a rise in vulnerabilities in 2018-19 leading to a modest depletion of foreign exchange reserves, India’s external sector has gained further stability in the first half of 2019-20 with improvement in BoP position anchored by capital flows bouncing back through FDI, FPI and ECBs, receipt of robust remittances and contraction of CAD to GDP ratio.

2. External debt remains low at 20 per cent of GDP. As on 10th January, 2020, India’s foreign exchange reserves stood at US$ 461.2 billion, recording an accretion of US$ 27.5 billion from H1 of 2019-20.

3. In recent times India’s tariff regime have come under pressure from trade partners who seek a cut in the country’s basic custom duties.

4. India has defended its tariff regime stating that it is necessary for protecting the vulnerable businesses in India.

5. However, independent of trade partners, Government is aware that some reduction in tariff rates may have to be done in respect of intermediate inputs and raw material to correct the presently inverted duty structure.

6. A corrected duty structure will reduce the cost of intermediate inputs imported for manufacturing of exports thereby making the country’s exports more competitive.

7. The resulting increase in exports will strengthen India’s BoP position. Box 2 discusses that every time India’s imports of intermediate inputs have risen so have the exports of associated consumption goods with an elasticity of greater than 1.

8. Accordingly, a reduction in basic custom duty on intermediate inputs will not only correct the inverted duty structure creating the right incentives for boosting manufacturing but will also increase the growth of exports of consumption goods that significantly use imported intermediate goods.

IMPORT ELASTICITY OF EXPORTS

1. The raw/intermediate goods are being imported for production of goods that can be consumed domestically or exported.

2. An analysis of the relation between exports of finished goods and imports of raw materials and intermediate goods for India shows that the exports of consumer goods are more sensitive to imports of raw materials and intermediate goods, as compared to capital goods.

3. This shows that through value addition, India is exporting a processed final product after importing raw materials in these sectors. This moves India up in the value chain in these sectors.

4. To support this further, it is necessary to facilitate ease of import of raw materials and intermediate goods in these sectors, by reducing basic custom duty on intermediate inputs.

5. This will not only correct the inverted duty structure but would also create right incentives for boosting manufacturing, employment and growth of exports of consumer goods.
Monetary Management and Financial Intermediation

Monetary Developments During 2019-20
1. The MPC has cut the policy repo rate changing the stance of monetary policy from neutral to accommodative, due to low inflation and to strengthen domestic growth.
2. Various indicators and the RBI survey indicated a weakening of both domestic and external demand conditions and the real GDP projections were revised downwards to 5% for 2019-20.
3. The growth of reserve money as on December 2019 was 13.2 per cent and also there was expansion in Currency in Circulation (CIC).

Quick Recall

Reserve Money (M0): Also known as High-Powered Money, monetary base, base money etc. It is the monetary base of economy.
M0 = Currency in Circulation + Banker’s Deposits with RBI + Other deposits with RBI.

Narrow Money (M1) = Currency with public + Demand deposits with the Banking system + Other deposits with RBI.

M2 = M1 + Savings deposits of post office savings banks.

Broad Money (M3) = M1 + Time deposits with the banking system.

M4 = M3 + All deposits with post office savings banks.

3. There was expansion in M0 during 2019-20. It was mainly contributed by RBI’s Net Foreign Assets (NFA) as against Net Domestic Assets (NDA) during the previous year.
4. Broad money (M3) growth has been on declining trend since 2009. Since 2018-19 it has picked up marginally, mainly driven by the growth in aggregate deposits and stands.
5. Between mid-1990’s to 2016-17, the money multiplier (measured as a ratio of M3/M0) was mostly increasing. It started declining since 2017-18.

Liquidity Conditions and Its Management
1. Systemic liquidity in 2019-20 has been largely in surplus since June 2019.

Systemic liquidity
1. Systemic liquidity in the financial system refers to the liquidity scenario in the banking sector, non-banking financial sector, the corporate sector and prevailing foreign currency liquidity.
2. Current needs for liquidity are also influenced by expectations about availability of funds and their rates in future.
3. RBI injected liquidity through Open Market Operations (OMOs) purchase auctions and buy/sell swap auction.
4. The Statutory Liquidity Ratio (SLR) has been reduced to align it with the Liquidity Coverage Ratio (LCR).
4. Other factors creating surplus liquidity are moderation in currency demand after two years of high demand following demonetisation.

**Developments in G-Sec Market**
2. It helped to bring down the yield slightly on 10-year G-Secs. This is expected to bring down the term premium by reducing the differential between the long- and short-term bond yields.

**Banking Sector**
1. Gross Non-Performing Advances (GNPA) ratio (i.e. GNPA% as a percentage of Gross Advances) of Scheduled Commercial Banks remained flat at 9.3%.
2. The Stressed Advances (SA) ratio of Scheduled Commercial Banks (SCBs) remains flat at 9.7%.
3. GNPA ratio of Public Sector Banks (PSBs) was unchanged at 12.3% while stressed advances ratios increased from 12.7% in March 2019 to 12.9% September 2019.
4. Capital to risk-weighted asset ratio (CRAR) of SCBs increased from 14.3% to 15.1% in March 2019.
5. Return on Assets (RoA) recovered from -0.1% to 0.4 % and Return on Equity (RoE) recovered from -1.6% to 4.1%, indicating overall increase in profitability of banking sector.
6. But, many PSBs have continued to record negative profitability ratios since March 2016, mainly on account of provisioning requirements.

**Monetary Transmission**
1. Transmission of monetary transmission has been weak in 2019 due to Rate Structure, Quantity of Credit, and Term Structure.
2. There has been a reduction in the saving deposit rate and term deposit rate, indicating further decline in savings in India.
3. The higher rate on small savings scheme like Public Provident Fund (PPF) than bank rates is a limiting factor.
4. Despite a decrease in policy rates, the credit growth in the economy has been declining since the beginning of this year.
5. Bank Credit growth (YoY) moderated from 12.9% to 7.1%. The moderation in credit growth was witnessed across all the major segments of non-food credit, except personal loans.
6. The moderation was led by a sharp deceleration in credit growth to the services sector.
7. The main contributor to this slowdown has been a negative growth of credit to Micro, Small and Medium Enterprises and Textiles.

**Major Policy Changes related to Banking Regulations**
1. Permitting One-time Restructuring of Existing Loans to MSMEs Classified as 'Standard' without a Downgrade in the Asset Classification.
   a. A one-time restructuring of existing loans to MSMEs that were in default but with asset classification as 'standard', was permitted without an asset classification downgrade.
   b. The scheme is available to MSMEs qualifying with objective.
   c. The restructuring will to be implemented by March 31, 2020 and an additional provision of 5% will have to be maintained in respect of accounts restructured under this scheme.
2. Bank were permitted to lend to Infrastructure Investment Trusts (InvITs), subject to certain safeguards. (The safeguard conditions are too technical and not required from exam point).
   a. The fundamental principles underlying the regulatory approach for resolution of stressed assets are
      i. Early recognition and reporting of default in respect of large borrowers by banks, FIs and NBFCs,
      ii. Complete discretion to lenders with regard to design and implementation of resolution plans, subject to the specified timeline and independent credit evaluation,
      iii. Harmonised framework for resolution of stressed assets, in supersession of all earlier resolution schemes (S4A, SDR, 5/25, etc.).
iv. A system of disincentives in the form of additional provisioning for delay in implementation of resolution plan or initiation of insolvency proceedings.

v. Withdrawal of asset classification dispensations on restructuring.

vi. For the purpose of restructuring, the definition of 'financial difficulty' to be aligned with the guidelines issued by the Basel Committee on Banking Supervision and

vii. Signing of inter-creditor agreement (ICA) by all lenders to be mandatory, which will provide for a majority decision making criteria.

4. External Benchmark Based Lending
   a. Transmission of policy rate changes to the lending rate of the banks under the current MCLR framework was not satisfactory. So, new guidelines were issued to banks.
   b. It mandated banks to link all new floating rate personal or retail loans and floating rate loans to Medium & Small Enterprises to an external benchmark.
   i. **Benchmarks:** The banks are free to choose one of the several benchmarks from Repo Rate, 3 Months or 6 Months Treasury Bill yield and any other benchmark market interest rate published by the Financial Benchmark India Private Ltd (FBIL).
   ii. **Spread:** Banks are free to decide the spread over the external benchmark.
   iii. **Reset of interest rates:** The interest rate under external benchmark shall be reset at least once in three months.

5. Variable Compensation to Bank Employees
   Revised guidelines on compensation of Whole Time Directors/Chief Executive Officers/Material Risk Takers and Control Function Staff for all Private Sector
   a) Substantial portion of compensation i.e. at least 50% should be variable (Earlier no threshold was prescribed)
   b) Employee Stock Ownership Plans (ESOPs) to be included as a component of Variable Pay as share-linked instruments. (Earlier excluded)
   c) Mandating imposition of malus (evil/mischievous) in case of divergence in NPA/provisioning beyond RBI prescribed threshold for public disclosure.
   d. Quantitative and Qualitative criteria are being prescribed for identification of Material Risk Takers.

Non-Banking Financial Sector (NBFC)
1. After growing very fast in 2017-18 and in first half of 2018-19, the sector has decelerated sharply since then.
2. The growth of loans from NBFCs declined from 27.6% in 2018 to 9.9% in 2019.

Major Policy Changes related to Non-banking Financial Regulation /Supervision Amendment to the RBI Act, 1934
1. It was amended to Strengthen the Regulation and Supervision of the NBFC Sector vesting additional powers with the Reserve Bank to:
   a. Raise the minimum net owned fund requirement for NBFCs up to Rs. 100 crore from Rs. 2 crores,
   b. Remove Director of an NBFC from the office,
   c. Supersede the Board of Directors of NBFC,
   d. Remove or debar statutory auditor from exercising the duties as auditor of any of the RBI regulated entities,
   e. Resolve NBFCs through amalgamation, reconstruction, splitting the viable and non-viable businesses in separate units,
2. Other regulations for smooth functions of NBFCs.

Liquidity Risk Framework for NBFCs
All non-deposit taking NBFCs with asset size of Rs. 100 crore and above, systemically important Core Investment Companies and all deposit taking NBFCs, need to adhere to the set of liquidity risk management guidelines.
Review of Limits for NBFC-Micro Finance Institutions (NBFC-MFIs)

a. The household income limits for borrowers of NBFC-Micro Finance Institutes (MFIs) have been raised from the current level of Rs. 1,00,000 for rural areas Rs. 1,60,000 for urban/semi urban areas to Rs. 1,25,000 and Rs. 2,00,000, respectively.

b. Lending limit has been increased from Rs. 1,00,000 to Rs. 1,25,000 per eligible borrower effective.

Housing Finance Companies

The regulation of Housing Finance Companies (HFCs) has been transferred by Government of India from National Housing Bank (NHB) to the RBI.

Developments in Capital Market

Primary Market

1. The total money raised by public and rights issue has increased significantly compared to corresponding period last year.
2. But the Primary market resource mobilisation through public and rights issues had declined as compared to 2017-18.
3. Resource mobilization through issuance of debt securities to public declined significantly.

Mutual Fund Activities

1. The net inflow into the mutual funds industry doubled as compared to the net inflow for the corresponding period in last year.
2. The net Assets Under Management of all mutual funds increased by 18.4%.

Investment by Foreign Portfolio Investors (FPIs)

1. The net inflows in FPIs in the Indian capital market in is lower than net outflows.
2. The total cumulative investment by FPIs increased by 7.8%.

Movement of Indian Benchmark Indices


Benefits of Enabling Bilateral Netting for Financial Contracts in India

1. India must adopt a practice called ‘bilateral netting’ as a way to release bank capital.
2. Bilateral netting allows two parties involved in a swap agreement to net-off their swap positions.
3. It is a global standard and will help to reduce the amount of capital banks need to set aside for such transactions.
4. Indian financial contract laws do not permit bilateral netting but, allow multi-lateral netting where parties can offset claims against each other through a central counterparty.
5. Without bilateral netting, Indian banks have had to set aside higher capital against their trades in the Over the Counter (OTC) market.
6. It impacts their ability to participate in the market. Moreover, it also increases the systemic risk during defaults.
7. Bilateral netting would also help reduce hedging costs and liquidity needs for banks, primary dealers and other market-makers, thereby encouraging participation in the OTC derivatives market.
8. It would also help develop the corporate default swaps market, which, in turn, would provide support to the development of the corporate bond market,
9. Global regulatory bodies such as the Financial Stability Board and the Basel Committee on Banking Supervision have supported the use of such netting.
10. At present, major economies such as the U.S., U.K., Australia, Canada, Japan, France, Germany, Singapore and Malaysia have legal provisions in place for netting agreements.

Insurance Sector

1. Internationally, the potential and performance of the insurance sector are generally assessed on the basis of two parameters – **Insurance penetration and Insurance density**.
   a. Insurance penetration is measured as the percentage of insurance premium to GDP.
   b. Insurance density is calculated as the ratio of premium to population.
3. The comparative figures for Malaysia, Thailand and China during the same period were US$ 518, US$ 385 and US$ 406 respectively.

4. Penetration for Life insurance has declined from 2011, whereas for the non-life insurance has increased consistently.

**Insolvency and Bankruptcy Code (IBC)**

1. IBC has provided a strong ecosystem for resolution.

2. The debtors and creditors alike are initiating the processes and those with large NPA account are undergoing corporate insolvency resolution process.

3. As on end December 2019, Rs. 1.58 lakh crore were realizable in cases resolved.

4. The Government has been proactively addressing the issues that come up in implementation of the reform.

5. The resolution under IBC has been much higher as compared to other processes such as Lok Adalat, Debt Recovery Tribunals and SARFAESI Act.

6. The Code provides a timeline of 330 days to conclude a case. This push has meant that proceedings under the Code take on average about 340 days, in contrast with the previous regime where process took about 4.3 years.
Prices and Inflation

1. The global economy has been witnessing a steep decline in inflation over the past five decades, especially the emerging markets.
2. This is due to several factors such as,
   a. adoption of a more resilient monetary and fiscal policy frameworks,
   b. structural reforms of labour and product markets that strengthen competition, and
   c. adoption of monetary policy framework for inflation targeting.
3. In India, inflation has been witnessing moderation since 2014, with a recent rise.
4. Headline Consumer Price Index-Combined (CPI-C) inflation increased to 4.1 per cent in 2019-20 compared to 3.7 per cent in 2018-19 (April to December).
5. Wholesale Price Index (WPI) inflation fell from 4.7 per cent in 2018-19 to 1.5 per cent during 2019-20 (April to December).
6. Fall in food inflation has been a major contributing factor in the drastic reductions observed in inflation.
7. Also, it has been observed that there has been a shift in inflation dynamics.
8. There is convergence of headline towards core inflation from 2012 onwards as per CPI-C.
9. Two major factors could have contributed this. They are
   a. Declining trend in food inflation.
   b. Declining inflation expectations due to inflation targeting.

Current Trends in Inflation

1. Since July 2018, CPI-Urban inflation, has been consistently above CPI-Rural inflation.
2. This is mainly on account of the differential rates of food inflation between rural and urban areas led by cereals, eggs, fruits, vegetables etc.
3. There is a decline in rural inflation in items like clothing and footwear, fuel and light which could be due to fall in growth of real rural wages.
4. CPI-C inflation has continued to be highly variable across States.
5. Food and beverages emerged as the main contributor to CPI-C inflation.
6. Some commodities such as onion, tomato and pulses have shown high inflation since August 2019 due to excess rainfall and slow progress of sowing.

Cobweb Phenomenon in Pulses

Measures to Prevent cobweb phenomenon

1. To prevent the occurrence of the cobweb phenomenon, in addition to existing measures, safeguard pulses farmers from crop failure/price shocks interventions like
   a. market intervention under Price Stabilization Fund (PSF),
   b. coverage under Pradhan Mantri Fasal Bima Yojana, PM-AASHA,
   c. Providing warehouses, improving transportation, price discovery through e-NAM etc, are needed.
2. The following measures are also suggested
a. free export of pulses to become self-sufficient in pulses production.
b. strengthening procurement by government agencies,
c. Increasing openness of external trade,
d. stabilising the prices,
e. reduce transportation cost for farmers by linking them via better roads and effective marketing channels so that production as well as net availability of pulses can be increase.
3. These measures can lead to improvement in supply of pulses.

Volatility in essential commodity prices
1. The overall price volatility was highest for vegetables and lowest for rice, wheat and palm oil.
2. Prices of rice and wheat remained stable due to adequate supply and also due to maintenance of adequate buffer stock.
3. The price volatility depends on supply and demand elasticities.
4. Stockholding and speculation can have major impact on price variability, either stabilizing or destabilizing.
5. Perishability of the commodities also adds to price volatility.
6. Presence of marketing channels, storage facilities, effective MSP system can help limit price volatility.

Measures to contain price rise of essential commodities
Government takes various measures to stabilize prices of essential food items which include
1. Utilizing trade and fiscal policy instruments like import duty, Minimum Export Price, export restrictions, imposition of stock limits and
2. Advising States for effective action against hoarders & black marketers etc. to regulate domestic availability and moderate prices.
3. Incentivization of farmers by announcing Minimum Support Prices for increasing production and
4. Implementation of schemes for increasing production and productivity such as
   a. Mission for Integrated Development of Horticulture (MIDH),
   b. National Food Security Mission (NFSM),
   c. National Mission on Oilseeds and Oil Palm (NMOOP), etc. and
   d. Price Stabilization Fund (PSF) to help moderate the volatility in prices of agri-horticultural commodities like pulses, onion, and potato.
1. The year 2019 marked the fourth anniversary of adoption of 2030 Agenda for Sustainable Development and the Paris Agreement.

2. India is striving to combine the ‘sustainability’ to economic development through well-designed initiatives for inclusive development enshrined in its policies.

3. India’s efforts towards the achievement of SDGs will contribute to their success at the global level.

4. India is among a few countries in the world where, despite ongoing developmental efforts, forest and tree cover are increasing considerably.

5. India has reduced the emission intensity by 21% of India’s GDP during 2005-2014.

6. SDG and climate change targets can be achieved at global level only if all nations fulfill their fair share of responsibilities including the financial obligation by the developed world to the developing countries.

**India and SDGs**

1. India follows a holistic approach for achieving the SDGs by implementing a comprehensive array of schemes.

2. The progress towards SDGs has been assessed by **SDG India Index 2019**.

a. It is comprehensive and highlights the progress being made by the States/UTs on a wider set of 100 indicators spread across 16 goals.

b. The Index also includes a qualitative assessment on SDG goal 17.

3. The States/UTs are ranked based on their aggregate performance across the 16 SDGs.

a. The SDG score varies from 0 to 100.

b. A score of 100 implies that the States/UTs have achieved the targets set for 2030 and score of 0 implies that the particular State/UT is at the bottom.

c. States with scores equal to/greater than 65 are considered as **Front-Runners**, 50-64 as **Performers** and less than 50 as **Aspirants**.

4. As per the SDG Index, Kerala, Himachal Pradesh, Tamil Nadu, Andhra Pradesh, Telangana, Karnataka, Goa, Sikkim, Chandigarh and Puducherry are the front runners.

a. None of the States/UTs fall in the Aspirant category in 2019.

b. Composite score for India has improved from 57 in 2018 to **60 in 2019**, indicating the impressive progress made towards achieving the SDGs.

5. This achievement is largely driven by country wide performance in five goals where India has scored between 65 and 99.

a. 6 (Clean Water and Sanitation),

b. 7 (Affordable and Clean Energy),

c. 9 (Industry, Innovation and Infrastructure),

d. 15 (Life on Land) and

e. 16 (Peace, Justice and Social Institutions)

6. The goals that demand special attention are – 2 (Zero Hunger) and 5 (Gender Equality) – where the overall country score is below 50.

a. The overall country score lies between 50 and 64, indicating the scope for improvement.
SDG Nexus
1. There exist interlinkages among SDGs and targets.
2. Target-based approach can help reinforcement of policies and its implementation. With the adoption of SDGs, the aim of the government is to reinforce its development priorities with SDG indicators.
3. The ‘nexus’ approach employs the principles of integrating management and governance across sectors and scales. It necessitates
   a. Looking at systems instead of individual components or short-term outcomes,
   b. Looking at the inter-related feedbacks from other sectors and
   c. Promoting cooperation among sectors while reducing competition for scarce resources.
4. As various socio-ecological processes are inter-linked, and pressure on certain resources can further increase leading to long-term challenges due to demands from other ‘nexus’ sector activities.
5. So, greater co-ordination across institutions at local, national and international levels is required.
6. This approach aims to achieve the balance between environmental, social, and economic boundaries and simultaneously ensure well-being of the people.
7. To follow this basic concept in India, the SDG goals are used as a medium which allows for interlinkages of different sectors and thematic areas.
8. As few SDGs have overlapping objectives with one another, the policies developed and aligned to achieve the goals must consider and identify these linkages and in-turn identify the potential trade-offs that might limit the physical achievement of the target under a goal.

Education and Electricity Nexus
1. Basic infrastructure like electricity, separate toilets for girls and boys create a healthy and positive environment at schools.
2. Electricity in schools is a part of basic infrastructure requirements to provide quality education as schools can
   a. access modern methods and techniques of teaching for holistic development of students and increase their attraction towards learning.
   b. access to Information and Communication Technologies (ICTs) methods and imparting knowledge of computer at schools.
   c. access to facilities provided under its Sarva Shiksha Abhiyan programme.
3. Globally schools with electricity outperform the non-electrified schools in terms of staff-retention, drop-outs and other educational indicators.
4. States with lower literacy rates have low electricity rates at the schools and vice-versa.
a. In case low and high HDI states, Net Enrolment Ratio (NER) and electricity rate shows positive trend during 2014 to 2017.

b. In case of medium HDI states, there is no conclusive trend because of the rate of growth of electrified school is not so high to the of number of schools getting constructed as compared to high and low HDI states during the same time period.

**Health and Energy Nexus**

1. Many of the health improvement schemes- providing pediatric care, new-born emergency services, and successful vaccination rely heavily on the availability of electricity at the health centers.

2. There is a positive relationship between the electricity consumption and fall in the Infant Mortality Rate (IMR) in the country.

**Climate Change**

1. India submitted its Nationally Determined Contribution (NDC) under the Paris Agreement on a “best effort basis” keeping in mind the developmental imperatives of the country.

2. In its NDC, India promised to
   a. reduce its **emission intensity of GDP** by **33 to 35%** below 2005 levels by the year 2030
   b. 40% of cumulative electric power installed capacity would be from non-fossil fuel sources by 2030 and
   c. increase its forest cover and additional carbon sink equivalent to 2.5 to 3 billion tons of carbon dioxide by 2030.

3. The Paris Agreement is to be implemented in post-2020 period in line with the guidelines adopted under Paris Agreement Work Programme.

4. Schemes like Swachh Bharat Mission, National Smart Grid Mission, Atal Mission for Rejuvenation and Urban Transformation etc. were aligned with its NDC.

5. Mitigation strategies emphasize on clean and efficient energy system, enhanced energy efficiency, resilient urban infrastructure, safe, smart and sustainable green transportation network, planned afforestation, as well as holistic participation across all sectors.

6. Swachh Bharat Mission (Urban) was launched in 2014 with the twin objectives of ensuring 100 per cent scientific solid waste management and making urban India open defecation free (ODF), to achieve total environmental improvement.

7. In 5 years, under SBM (U)- all urban areas of 35 States/ UTs have become ODF and the percentage of waste processing rose from around 18 per cent in 2014 to 60 per cent.

8. India had announced 175 Gigawatt (GW) targets for renewables by 2022 and has already achieved 83 GW.

9. As a Party to the UNFCCC, India submitted its Second Biennial Update Report (BUR) to the UNFCCC towards fulfillment of the reporting obligation under the Convention.

10. As per the BUR, the emission intensity of India’s GDP has reduced by 21 per cent over the period of 2005-2014.

11. In 2014, the net national GHG emissions after including LULUCF (Land Use, Land Use Change and Forestry) were around 2.306 billion tons of CO2 equivalent.
Progress in India’s Climate Change Policies

1. Launched in 2008, India’s National Action Plan on Climate Change (NAPCC) identifies a number of measures that simultaneously advance development and achieve climate change related objectives.

2. It also focuses on key adaptation requirements and creation of scientific knowledge and preparedness as climate change acts as a “risk multiplier” for the vulnerable groups, worsening existing social, economic and environmental stresses.

3. India has decided to revise the NAPCC in line with the NDCs under the Paris Agreement to make it more comprehensive in terms of priority areas.

National Missions and Progress


2. **National Solar Mission** aims to increase the share of solar energy in the total energy mix with a target of 100 GW (40 GW Grid connected Rooftop projects and 60 GW large and medium size land based solar power projects).

3. **National Water Mission** focuses on monitoring of ground water, aquifer mapping, capacity building, water quality monitoring and other baseline studies.

   Central Ground Water Authority (CGWA) has issued directions under Section 5 of “The Environment Protection Act, 1986” for mandatory Rain Water Harvesting / Roof Top Rain Water Harvesting for all target areas in the country including UTs.

4. **National Mission for a Green India** envisages a holistic view of greening and focuses on multiple ecosystem services along with carbon sequestration and emission reduction.

   The mission emphasized the **landscape approach** to treat large contiguous areas of both forest and non-forest, public and private lands with a key role of the local communities in planning, implementation and monitoring.

   **Energy efficient devices** have been provided to households to promote alternative energy sources in project areas.

5. **Convergence Guidelines** with Mahatma Gandhi National Rural Employment Guarantee Scheme and Compensatory Afforestation Fund Management and Planning Authority have been issued.

Steps in this direction include Mandatory connection load of 100 KW or above for commercial buildings under Energy Conservation Building Rules 2018, Implementation of Mass Rapid Transit Systems and Development of standards for six sub-sectors namely, solid waste management, water and sanitation, storm water drainage, urban planning, energy efficiency and urban transport.

6. National Mission for Sustainable Agriculture aims at enhancing food security and protection of resources. The mission has resulted in the formation of National Innovations on Climate Resilient Agriculture, a network project.

7. National Mission for Sustaining the Himalayan Ecosystem aims to evolve suitable management and policy measures for sustaining and safeguarding the Himalayan Ecosystem. The key achievements include setting up of: - Centre of Glaciology at Wadia Institute of Himalayan Geology, thematic task forces in 6 lead institutions, State Climate Change Centers in 11 out of 12 Himalayan States, 40 Training Programmes under State Climate Change Centres organized with 5500 people trained, formation of Inter-University Consortium of 4 universities on Himalayan Cryosphere and Climate Change.

8. National Mission on Strategic Knowledge for Climate Change seeks to build a knowledge system that would inform and support national action for ecologically sustainable development. Key achievements include a. Setting up of 11 Centres of Excellence and 10 State Climate Change Centres. b. Launching of 116 Training programmes c. Launching 7 Human Capacity Building and National Knowledge Network programmes in the areas of climate change science, adaptation and mitigation. d. Setting up of 8 Global Technology Watch Groups in the areas of Renewable Energy Technology, Advance Coal Technology, Enhanced Energy Efficiency, Green Forest, Sustainable Habitat, Water, Sustainable Agriculture and Manufacturing.

9. Climate Change Action Program (CCAP), a central sector scheme, was launched to build and support capacity at central and state levels, strengthening scientific and analytical capacity for climate change assessment, establishing appropriate institutional framework and implementing climate actions.

10. As per National Electric Mobility Mission Plan (NEMMP) 2020, Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India (FAME India) scheme was formulated to promote manufacturing and sustainable growth of electric and hybrid vehicle technology.

11. National Bio-fuels Policy 2018 targets 20 per cent blending of ethanol in petrol and 5 per cent blending of biodiesel in diesel by 2030.

12. National Adaptation Fund on Climate Change supports concrete adaptation activities for the States/UTs that are particularly vulnerable to the adverse effects of climate change and are not covered under on-going schemes.
   a. It has been taken as Central Sector Scheme with National Bank for Agriculture and Rural Development (NABARD) as the National Implementing Entity.
   b. The implementation is supported under both multilateral and domestic national funds.

Aligning Financial System with Sustainability

1. Cleaner forms of production essentially require a sound financial system.

2. In 2007, RBI sensitized banks to the various international initiatives in the field of sustainability and modify their lending strategies/plans.

3. In 2012, SEBI mandated the Annual Business Responsibility Reporting (ABRR), a reporting framework based on the National Voluntary Guidelines (NVGs) on Social, Environmental and Economic Responsibilities of Business released by the Ministry of Corporate Affairs.

4. The concept of NVG was developed by the Indian Institute of Corporate Affairs for adoption by the corporate sector. SEBI mandated adoption of NVGs by the listed Indian companies including banks.

5. Working Group set up by Indian Banks’ Association (IBA) in 2014-15 finalized the guidelines on ‘NVGs for Responsible Financing’.
These guidelines lay down 8 principles, which cover different aspects of environmental, social and governance (ESG) responsibilities to informed business action.

Each principle details its ‘Description and Applicability’ and ‘Areas of Disclosure’ which would enable Financial Institutions to integrate the ESG principles in business decision making, structure and processes.

**Green Bonds**

Proceeds from Green bonds, debt securities issued by financial, non-financial or public entities are used to finance 100% green projects and assets.

a. The first half of 2019 saw sustainability/SDG bonds maintaining their place in a wider labeled market as issuers and investors continues to adopt policies and strategies linked to SDGs.
b. Social bonds also maintained visibility within the labeled market.
c. Climate Bonds remains focused on green bonds, which are specifically linked to climate-change mitigation, adaptation and resilience.
d. India has the second largest Emerging green bond market after China.
e. Government agencies such as Indian Renewable Energy Development Agency (IREDA), the Indian Railway Finance Corporation (IRFC), the SBI have contributed to issuance.

**Figure 8: H1’ 2019 Labeled Issuance of Bonds (in US$ Billion)**

![Graph showing labeled issuance of bonds by type, with Green bonds leading significantly.](source: Climate Bonds Initiative (as on 19.12.2019))

**Figure 9: Major Emerging Markets for Green Bonds Issuance 2012-18 (US$ Billion)**

![Bar chart showing the leading issuers for green bonds by country, with China being the most significant.](source: Emerging Market Green Bonds Report 2018)
International Platform on Sustainable Finance (IPSF)
1. India joined the International Platform on Sustainable Finance (IPSF) to scale up the environmentally sustainable investments.
2. The Platform acknowledges the global nature of financial markets which has the potential to help finance the transition to a green, low carbon and climate resilient economy by linking financing needs to the global sources of funding.
3. The main objectives are
   a. exchange and disseminate information to promote best practices in environmentally sustainable finance.
   b. compare the different initiatives and identify barriers and opportunities to help scale up environmentally sustainable finance internationally while respecting national and regional contexts.

Green Climate Fund
1. Under the UNFCCC and Paris Agreement, the developed country Parties has obligation to provide financial resources to developing countries to undertake adaptation and mitigation actions in accordance with the country needs and priorities.
2. In 2009, developed countries committed to a goal of mobilizing jointly US$ 100 billion a year by 2020 to address the needs of developing countries and decided that a significant portion of such funding should flow through the GCF.
3. But the total pledges to the GCF in the Initial Resource Mobilization (IRM) in 2014, the largest dedicated climate fund was US$ 10.3 billion.
4. Despite intense talks to close the emissions gap to limit temperature rise by 1.5 – 2 degree C above pre-industrial level the crunch in climate finance remains unresolved.

India and COP 25
1. The 25th session of the Conference of the Parties (COP 25) to the UNFCCC was held at Madrid, Spain.
2. COP 25 decision, titled Chile Madrid Time for Action, emphasizes the continued challenges that developing countries face in accessing financial, technology and capacity-building support.
3. It also recognizes the need to enhance the provision of support to developing country Parties for strengthening their national adaptation and mitigation efforts.
4. It recalls the commitment made by developed country Parties to a goal of mobilizing jointly US$ 100 billion per year by 2020 to address the needs of developing countries.
5. Under the review of Warsaw International Mechanism (WIM) for Loss and Damage, the decision recognizes urgency of scaling-up of action and support for developing countries to minimize and address loss and damage.
6. It has established the Santiago network for catalyzing technical assistance for implementation of relevant approaches in developing countries.
7. It states that scaled-up financial resources should aim to achieve a balance between adaptation and mitigation, taking into account strategies, priorities and needs of developing country Parties.
8. It requests the Technology Executive Committee (TEC) and the Climate Technology Centre and Network (CTCN) to continue to implement their mandates with strengthened efforts on all themes of the technology framework.
9. GCF has also been requested to collaborate with CTCN and TEC for strengthening cooperative action on technology development and transfer at different stages of the technology cycle.
10. India hosted ‘India Pavilion’ at COP-25 with the theme ‘150 years of celebrating the Mahatma’, designed to depict Mahatma Gandhi’s life and messages around sustainable living.

India’s Initiatives
1. International Solar Alliance (ISA)
   1. ISA is the first treaty based inter-governmental organization headquartered in India.
   2. It aims to pave the way for future solar generation, storage and technologies for Member countries’ needs by mobilizing over US$ 1000 billion by 2030.
   3. Achievement of ISA’s objectives will also strengthen the climate action in Member countries, helping them fulfill their NDC commitments.
4. ISA has taken up multiple roles such as
   i. ‘Enabler’- Institutionalized Fellowships from the Member countries with premier institution (IIT Delhi) and training Master Trainers from ISA Member countries.
   ii. ‘Facilitator’- Ensures Multiple Development Banks such as EXIM Bank of India and Agence Francaise de Development (AfD) invest in solar.
   iii. ‘Incubator’- Nurtures initiatives like the Solar Risk Mitigation Initiative and
   iv. ‘Accelerator’- Develops tools to aggregate demand for more than solar rooftop, Solar Mini-Grid and solar water pumping systems.

5. **Programme on Scaling Solar Applications for Agriculture Use** focuses on providing greater energy access and a sustainable irrigation solution through deployment of Solar Water Pumping Systems in member countries.

6. The **Solar Risk Mitigation Initiative**, launched by World Bank and AfD in support of the ISA, aims at supporting the development of bankable solar programs in developing countries leveraging private sector investments.

7. World Bank has also committed US$ 337 million Risk Mitigation Fund for 23 member countries in off grid sector in Africa in partnership with ISA.

8. The European Investment Bank has started working on a 60 Million Euros grant project to create a concessional financial facility and risk mitigation Fund to promote off grid applications in Africa.

9. The ISA secretariat is also developing a robust implementation plan for the Scaling Solar Mini-grids Programme.

10. The Asian Development Bank is providing **Knowledge Support and Technical Assistance (KSTA)** to Six South Asian Countries in partnership with the ISA.


12. To strengthen ISA’s partnership with the UN and its agencies Permanent Observer Status and cooperation agreement for establishing institutional linkages between the ISA and the UN has been requested.

13. ISA has also signed MoU with UNESCAP and with **Sustainable Energy (SE4) All**, institutionalized solar awards in collaboration with Government of Haryana (Kalpana Chawla Solar Award), Government of Madhya Pradesh (Acharya Vinoba Bhaze international award) and Government of Karnataka (Sri Visveswaraya Award) to strengthen the institution.

**Coalition for Disaster Resilient Infrastructure**

1. India launched the CDRI in 2019. It is an international partnership of national governments, UN agencies, multilateral development banks, private sector, and knowledge institutions.

2. CDRI envisions enabling measurable reduction in infrastructure losses from disasters, including extreme climate events.

3. CDRI aims to enable the achievement of objectives of expanding universal access to basic services and enabling prosperity as enshrined in the SDGs, along with Sendai Framework for Disaster Risk Reduction and the Paris Climate Agreement.

4. CDRI will conduct country-specific and global activities and provide member countries technical support and capacity development, partnerships to facilitate and encourage investment in disaster resilient infrastructure systems.

**India and the UNCCD**

1. India hosted 14th session of the Conference of Parties (COP 14) to the United Nations Convention to Combat Desertification (UNCCD) was the President of COP.

2. The commemoration of World Day to Combat Desertification 2019 envisaged the release of COP 14 Logo with the Slogan “Restore Land, Sustain Future”.

3. Strong human intent, intelligence as well as technology is needed to reverse the damage caused by human actions that accelerated climate change.

4. India announced its support for enhanced South-South Cooperation that aims to share India’s experiences with cost-effective and sustainable land management strategies and a “Global Water Action Agenda” to maximize synergies through holistic land and water management.
5. As a party to the UNCCD, India has voluntarily committed to raise its ambition of the total area that would be restored from its land degradation status, from 21 million to 26 million hectares between now and 2030.
6. COP 14 adopted the New Delhi Declaration: Investing in Land and Unlocking Opportunities.
7. It aims to improve human health and well-being, the health of ecosystems, and to advance peace and security.

India and Its Forests
1. India is among a few countries in the world where forest and tree cover are increasing considerably.
2. In terms of canopy density classes, area covered by Very Dense Forest (VDF) is 3.02%, Moderately Dense Forest (MDF) is 9.39% and Open Forest (OF) is 9.26%.

![Figure 11: Forest Cover of India (2019) (per cent)](image)

- The forest and tree cover have reached 24.56% of the geographical area of the country.
- The total forest cover of the country, as per current assessment 2019 is 21.67% of the total geographic area of the country.
- There has been an increase of 0.56% of forest cover, 1.29% of tree cover and 0.65% of forest and tree cover put together, at the national level as compared to the previous assessment 2017.
- The top States/UTs showing significant gain in forest cover are Karnataka, Andhra Pradesh, Kerala and Jammu & Kashmir whereas States showing loss in forest cover are Manipur, Meghalaya, Arunachal Pradesh and Mizoram.
- India is one of the 17 mega diverse countries in the world as evident in the Shannon-Weiner Index for Diversity used for measuring species richness and abundance.
  b. The Index shows that Tropical Evergreen forest is high in Karnataka followed by Kerala. Tropical moist deciduous forests cover is high in Arunachal Pradesh, Karnataka and Maharashtra.
  c. Tropical dry deciduous forest is high in Arunachal Pradesh and semi-evergreen forest are high in Karnataka.
  d. Tropical Littoral and swamp forests are high in UP and tropical thorn forests are seen widely in Andhra Pradesh.
1. India accounts for 2% of the total global forest area in 2015 as per the Global Forest Resource Assessment (FRA) by FAO.
2. Forest plays a crucial role in adaptation and mitigation to climate change and helps to store more carbon than any other terrestrial ecosystem.
3. The Forest Report, 2019 estimates an increase of 42.6 million tons of the total carbon stock in forest as compared to the last assessment 2017.
4. Net change in carbon stock in India shows that net change is highest in soil organic carbon followed by Above Ground Biomass (AGB) and Dead wood.

5. Litter carbon registered negative growth rate as compared to 2017 assessment.

**Agricultural Residue Burning**

1. Burning of agricultural wastes in the fields results in a number of environmental problems.
2. India, being the second largest agro-based economy with year-round crop cultivation, generates a large amount of agricultural waste, including crop residues.
3. Open burning of crop residues in the agricultural fields has become an environmental concern in India, particularly during paddy harvesting season.
4. Varieties of surplus crop residues are burnt especially in northern States of Punjab, Haryana, UP, and Rajasthan depending on the agro-climatic region. About 50% of all crop residue burnt in the country are residues of rice crop.
5. Use of combine harvesters leaves the crop residues in field, and in order to clear the fields for the next crop in easiest way, farmers’ burn the residues.
6. Burning of these residues leads to rise in pollutant levels and deterioration of air quality.
7. Agricultural burning contributes significantly in PM2.5 concentrations and burning huge volumes of residues in a very short duration leads to significant contributions in pollutant levels like PM2.5.
   a. The effect of **stagnant atmospheric condition** over Delhi during the harvest season of kharif crop has aggravated the deterioration of the ambient air quality in the region.
   b. Emission pollutants released due to burning depends on the type of crop residue.
   c. Open burning of crop residues has ill effects on soil organic carbon and soil fertility.
8. Alternative ways suggested to address this issue
   a. Promote the practice of conservation of agriculture with low lignocellulosic crop residues like rice, wheat, maize etc.
   b. Use agricultural machineries that help farmers to sow the seeds of the next crop without any problem associated with residues of the previous crops and also without affecting the crop productivity.
   c. Create markets for crop residue-based briquettes and mandate nearby thermal power plants to undertake co-firing of crop residues with coal.
   d. Create infrastructure for setting up biomass depots for storage of bailed crop residues in areas that have high fire incidents or high production of a particular crop.
   e. Create special credit line for financing farm equipment and working capital for private sector participation.
   f. Promote use of crop residue-based biochar briquettes in local industries, brick kiln and hotel/dhaba as an alternate fuel.
Pollution control as a parameter for deciding incentives and allocation to States/UTs.

**Measures Taken**

1. National Green Tribunal also prohibited burning of agricultural residue in any part of the NCT of Delhi, Rajasthan, Punjab, Uttar Pradesh and Haryana.
2. Violations of these directions are liable to pay **Environmental Compensation** collected by the concerned State Governments.
3. NGT also directed states to implement the **National Policy for Management of Crop Residue** released by the Union Government in 2014.
4. Burning crop residue is a crime under Section 188 of the IPC and under the Air and Pollution Control Act of 1981.
5. A new Central Sector Scheme on ‘Promotion of Agricultural Mechanization for In-Situ Management of Crop Residue in the States of Punjab, Haryana, Uttar Pradesh and NCT of Delhi’ for the period from 2018-19 to 2019-20 is being implemented.
   a. Under this Scheme, the agricultural machines and equipment for in-situ crop residue management are provided with 50% subsidy to the individual farmers and 80% subsidy for establishment of Custom Hiring Centres.
6. These efforts resulted in significant reduction of the total number of burning events. But the practice by keeps continuing.

**Construction and Demolition (C&D) Waste**

1. Unscientific disposal of C&D waste is one of the key contributors to the air and water pollution.
2. C&D is a key contributor towards particulate matter emissions in Delhi.
3. Investing in a circular economy driven approach in C&D waste management can give better results in terms of avoiding health and environmental damage.
4. Application of recycled C&D products
   a. Standards for utilization of manufactured Coarse and Fine Aggregates have been prescribed by Bureau of Indian Standards (BIS).
   b. The recycled products have been included in the Delhi Schedule of Rates issued by CPWD. The civic bodies of Delhi and other Government Departments are actively using the recycled C&D materials & products for ongoing civil works.
Agriculture Food Management

1. Economic transformation of a developing country like India crucially depends on the performance of its agriculture and allied sector.
2. This sector plays a significant role in rural livelihood, employment and national food security.
3. It is the largest source of livelihoods in India with 70% of the rural households depending primarily on agriculture for their livelihood, with 82% of farmers being small and marginal.
4. The objective of inclusive development can be realised through a focus on rural development where agriculture can deliver significantly.
5. For Government's focus on doubling farmers’ income, a number of measures are being undertaken ranging from
   a) Income support schemes
   b) Crop insurance
   c) Water conservation
   d) Waste management techniques
   e) Agriculture marketing reforms

Overview of Agriculture

**Gross Value Added and growth**
1. The share of agriculture and allied sectors in the Gross Value Added (GVA) of the country at current prices has declined from 18.2% in 2014-15 to 16.5% in 2019-20.
2. It has been declining due to relatively higher growth performance of non-agricultural sectors.
3. Growth of GVA of agriculture and allied sectors has witnessed a fluctuating trend. It is estimated to grow by 2.8% as compared to growth of 2.9% in 2018-19.
4. The Gross Capital Formation (GCF) in agriculture and allied sectors relative to GVA in this sector also has been fluctuating.

**Minimum Support Prices**
1. To encourage higher investment and production, MSPs for 22 mandated crops and Fair and Remunerative Price for Sugarcane are announced.
2. The Union Budget (2018-19) had announced pre-determined principle to keep MSPs at levels of one and half times of the cost of production.
3. Along with it, direct income/investment support schemes have been introduced to improve financial conditions of farmers.

| Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) | i) It is a Central Sector scheme with 100 per cent funding from Government of India.  
ii) It covers all the farmers (subject to certain exclusion criteria).  
iii) An income support of ` 6000 per year is provided to all farmer families across the country in three equal instalments of Rs. 2000 at an interval of every four months. |
| Krushak Assistance for Livelihood and Income Augmentation (KALIA) | i) This scheme was launched by Government of Odisha to accelerate agricultural prosperity and elimination of poverty in the State.  
ii) Financial support of Rs. 25,000 per farm family over five seasons will be provided to small and marginal farmers so that farmers can purchase inputs like seeds, fertilizers, pesticides, labour & other investments. |
| Mukhya Mantri Krishi Ashirwad Yojana of Jharkhand | i) Under the scheme, all the small and marginal farmers of the State, who have arable land up to a maximum of 5 acres, will be given a grant-in-aid at the rate of Rs. 5000 / - per acre per year.  
ii) This is in addition to PM Kisan Nidhi Yojana under which each small & marginal farmer's family having combined landholding/ ownership of up to two hectares is paid ` 6,000 per year. |
Rythu Bandhu of Telangana

i) Government of Telangana has come up with a new concept of providing Investment Support at the rate of ` 4,000 per acre per season to all the farmers to purchase of various inputs like seeds, fertilizers etc., as initial investment before the crop season.

ii) The scheme is being implemented from Kharif 2018 onwards.

Mechanisation in Agriculture

1. Agriculture mechanization is an essential input to modern agriculture to
   a) Increase the farm productivity by making judicious use of inputs and natural resources
   b) Reduce the human errors and cost of cultivation.

2. With the shrinking land and water resources and labour force, the onus rests on mechanization of production and post harvesting operations.

3. There is a linear relationship between availability of farm power and farm yield. So, the Government has decided to enhance farm power availability from 2.02 kW per hectare (2016-17) to 4.0 kW per ha by the end of 2030 to cope up with increasing demand for food grains.

4. Indian tractor industry is the largest in the world, accounting for one-third of the total global production.

5. Farm mechanization market in India has been growing due to thrust given by various government policies.
   a) Sub Mission on Agricultural Mechanization
      i) It was launched in 2014-15.
      ii) Assistance is provided to State governments to provide training and demonstration of agricultural machinery.
      iii) Assistance to farmers is also provided for procurement of various agricultural machineries and equipment and for setting up of Custom Hiring Centre.
   b) New central Sector Scheme on ‘Promotion of Agricultural Mechanization for In-Situ Management of Crop Residue’ has been launched in the States of Punjab, Haryana, Uttar Pradesh and NCR.

Low mechanisation level

1. Overall farm mechanization in India has been lower (40-45%) compared to other countries such as USA (95%), Brazil (75%) and China (57%).

2. There are intra-national level disparities in mechanization where northern India has higher levels of mechanization compared to other regions.

3. A study by NABARD in 2018 on farm mechanization has identified following reasons for lower rate of agricultural mechanisation
   a) Difficulties in operation due to small holding
   b) Lack of access to power, credit cost and procedures
   c) Uninsured market and low awareness

![Table 4: Mechanization Levels for Major Crops in India in 2018-19](image-url)
Micro Irrigation
1. Focus on water use efficiency at farm level through precision or micro Irrigation (drip and sprinkler irrigation) has become a farm imperative to ensure a sustainable agricultural practice.
2. Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) launched in 2015 aims to provide end-to-end solutions in irrigation supply chain.
3. Per Drop More Crop component of PMKSY (PMKSY-PDMC) is operational from 2015-16 focussing on water use efficiency at farm level.

4. Micro Irrigation includes drip and sprinkler irrigation. Strengths of this technology include,
   a) Efficient deployment of inputs such as water, electricity, fertilizers etc.
   b) Increase in crop productivity
   c) Better quality of produce leading to higher realization of sale price
   d) Increase in income of farmer
5. Following benefits have accrued to the farmers,
   a) Saving of irrigation water from 20 to 48%
   b) Energy saving from 10 to 17%
   c) Saving of labour cost from 30 to 40%
   d) Saving of fertilizers from 11 to 19%
   e) Increase in crop production from 20 to 38%
6. A dedicated Micro Irrigation Fund (MIF) created with NABARD has been approved with an initial corpus of Rs. 5000 crore facilitating the States to promote micro-irrigation.

Agriculture Credit
1. The agricultural credit flow target for 2019-20 has been fixed at Rs. 13,50,000 crore and till November-end 2019, a sum of Rs. 9,07,843.37 crore has been disbursed.
2. The regional distribution of agricultural credit in India is highly skewed with the credit being low in North Eastern, Hilly and Eastern States.
3. The share of North Eastern States has been less than one percent in total agricultural credit disbursement.

**Crop Insurance**

1. Pradhan Mantri Fasal Bima Yojana (PMFBY) has been under implementation since 2016.
2. It provides comprehensive coverage of risks from **pre-sowing to post harvest** against natural non-preventable risks.
3. The insurance premium is paid to insurance companies with very low share contributed by the farmers across the country
   a) 2% of the sum insured- For Kharif crops
   b) 1.5% of the sum insured- For rabi crops
   c) 5% for commercial/horticultural crops
4. It envisages increase in coverage from the existing 23% to 50% of Gross Cropped Area (GCA) in the country.
5. Direct Benefit Transfer (DBT) was introduced to help farmers receive claims directly in their bank accounts which made mandatory registration through Aadhar.
6. This was done to weed out ghost/duplicate beneficiaries and help genuine farmers through Aadhar based verification.
7. The Government has also created a National Crop Insurance Portal that provides interface among all stakeholders.

**National Crop Insurance Portal**

i) It is a web-based integrated IT platform that provides interface among all stakeholders to access/enter data relating to insured farmers under PMFBY and Restructured Weather Based Crop Insurance Scheme (RWBCIS).
ii) All stakeholders means the states, banks, insurance companies (ICs), farmers and the Common Service Centre (CSC) involved in the enrolment process.
iii) Crop insurance portal envisages creation of demand for Government share of premium subsidy from the portal itself.
Agriculture Trade
1. India occupies a leading position in global trade of agricultural products. However, its total agricultural export basket accounts for only 2.15% of the world agricultural trade.
2. Major export destinations are USA, Saudi Arabia, Iran, Nepal and Bangladesh.
3. Since the economic reforms (1991), India has remained consistently a net exporter of agro-products.
4. Government has recently initiated a comprehensive ‘Agriculture Export Policy’ aimed at doubling the agricultural exports and integrating Indian farmers and agricultural products with the global value chains.
5. It has created Agri-cells in many Indian embassies abroad to take care of agricultural trade related issues.

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<tr>
<th>Table 5: India’s Export of Principal Agri and allied Commodities (Value in ₹ '000' Crore &amp; Quantity in Lakhs Metric Tonnes)</th>
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<tr>
<td>Commodities</td>
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<td></td>
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<tr>
<td>Rice-Basmati</td>
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<tr>
<td>Spices</td>
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<tr>
<td>Rice (Other than Basmati)</td>
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<td>Cotton Raw Including Waste</td>
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<td>Oil Meals</td>
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<td>Sugar</td>
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<td>Castor Oil</td>
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<td>Tea</td>
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<td>Coffee</td>
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<tr>
<td>Fresh Vegetables</td>
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<td>Total Agri and allied exports</td>
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<td>Source: DAC&amp;FW</td>
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Agricultural Research and Education
1. Indian Council of Agricultural Research (ICAR) is the premier research organisation for co-ordinating research and education in agriculture, horticulture, fisheries and animal sciences.
2. ICAR has developed new crop varieties having specific traits that improve yield and nutritional quality along with tolerance to various biotic and abiotic stresses.
3. The Council developed 18 biofortified varieties of crops that are rich in iron, zinc, protein and glucoisnolates and Kunitz Trypsin Inhibitor (KTI) free to ensure nutritional security.
4. The ICAR also works for the integrated development of all the subsectors as all these are integrated at the farmers’ farm.
5. First gazette notification of 184 registered indigenous breeds was done in 2019. It will enable placing the genetic information with legal tag in the public domain and help in protection of these bioresources from biopiracy and other IPR issues.

| Biopiracy | is the practice of commercially exploiting naturally occurring biochemical or genetic material, especially by obtaining patents that restrict its future use, while failing to pay fair compensation to the community from which it originates. |

7. During 2018-19, 15 new indigenous populations of livestock and poultry as breeds were registered to increase higher availability of animal and fish products.

India’s livestock
i) As per Livestock Census 2019, India possesses 535.78 million livestock population.
ii) It includes 192.49 million cattle, 109.85 million buffalo, 74.26 million sheep, 148.88 million goat and 9.06 million pig and 851.81 million poultry population.
iii) This vast and varied population of animals is mainly indigenous, while a sizeable population is crossbreds between exotic germplasm and native stock.
Transferring Technologies from Lab to Farmer’s Field

1. Around 716 Krishi Vigyan Kendras (KVKs) of India have been linked with common service centers to spread KVKs amongst the farmers to provide them demand driven services and information.

2. To take the technologies of the labs to farmers’ fields, KVKs conducts farm trials and frontline demonstrations.

3. To harness the benefits of digital development a digital platform has been created- **Cyber Agro-Physical Systems (CAPS)**.

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<th>CAPS</th>
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<td>i) It aims to make farming a viable, self-sustaining and internationally competitive enterprises with the help of ICAR and related agencies.</td>
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<tr>
<td>ii) It integrates the use of sensors with computers, satellite imagery, supercomputing facility for research as well as reduces uncertainty and risk in agriculture operations through Artificial Intelligence enabled farmers’ advisories</td>
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<tr>
<td>iii) Department of Agriculture also launched the Agricultural Education Portal EKTA (Ekikrit Krishi Shiksha Takniki Ayaam) for integrated online management information system.</td>
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**Allied Sectors**

**Animal Husbandry, Dairying and Fisheries**

1. Agriculture allied activities have contributed to the food production and draught animal power and maintain ecological balance.

2. Such sectors generates gainful employment, particularly among the landless, small and marginal farmers and women and provides nutritious food.

3. Livestock income has become an important secondary source of income for rural families and can doubling farmers’ income.

4. Livestock sector has grown at a compound annual growth rate of 7.9% during last five years.

5. Government has launched a new Central Sector Scheme ‘National Animal Disease Control Programme (NADCP) for control of Foot & Mouth Disease (FMD) and Brucellosis’ for 2019- 24.

6. This will result in increased domestic production and increased exports of milk and livestock products.

7. India continues to be the largest producer of milk in the world.

8. Per capita availability of milk and egg production has increased during 2018-19.

**Fisheries Sector**

1. The sector provides livelihood to about 16 million fishers and fish farmers at the primary level and almost twice the number along the value chain.

2. An independent Department of Fisheries was created in 2019 to provide sustained and focused attention.

3. The sector has been showing a steady growth in the total GVA and accounts for 6.58% of GDP from agriculture, forestry and fishing.

4. The fish production in India has registered an average annual growth rate of more than 7% in the recent years. It is one of the major contributors of foreign exchange earnings.

5. India is one of the leading seafood exporting nations in the world. USA and South East Asia are the major export markets for Indian seafood with a share of 34.81% and 22.67% respectively.

<table>
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<th>India’s potential</th>
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<td>i) India has rich and diverse fisheries resources. The marine fisheries resources are spread along the country’s vast coastline, shelf and Exclusive Economic Zone (EEZ).</td>
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<td>ii) The inland resources are in the form of rivers and canals, floodplain lakes, ponds and tanks, reservoirs, brackish water, saline/ alkaline affected areas.</td>
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<td>iii) The contribution of inland fisheries is more than the contribution of marine fisheries contributed.</td>
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6. **Andhra Pradesh, West Bengal** are top two states in fisheries production.

7. To address the gaps in fisheries infrastructure, the government has created the **Fisheries and Aquaculture Infrastructure Development Fund (FIDF)** during 2018-19.
8. The fund provides concessional finance/loan to the Eligible Entities (EEs), including State Governments/UTs for development of identified fisheries infrastructure facilities.

9. The concessional finance under the FIDF is provided by the Nodal Loaning Entities- (i) NABARD, (ii) National Cooperatives Development Corporation (NCDC) and (iii) All scheduled Banks.

**Food Processing Sector**
1. A well-developed food processing sector helps to
   a) Reduce the wastage
   b) improve value addition
   c) Promote crop diversification
   d) Ensure better return to the farmers
   e) Promote employment as well as increases export earnings.
2. During the last 6 years ending 2017-18, Food Processing Industries sector has been growing at an average annual growth rate of around 5.06%.
3. The sector constitutes as much as 8.83% and 10.66% of GVA in Manufacturing and Agriculture sector respectively in 2017-18 at 2011-12 prices.
4. Government has restructured its schemes under a new central sector scheme of **Pradhan Mantri Kisan Sampada Yojana** (PMKSY).
5. The scheme provides subsidy-based support to create robust modern infrastructure for agriculture and agro-based industries along the entire value or supply chain.

**Fertilizers**
1. New Urea Policy-2015 (NUP2015) has been notified by Department of Fertilizers with the objectives of
   a) Maximizing indigenous urea production
   b) Promoting energy efficiency in urea production
   c) Rationalizing subsidy burden on the government.
2. While production of urea was highest during the year 2015-16, the imports of fertilizers show fluctuating trend.

**Food Management**
1. The main objectives of food management are
   a) Procurement of food-grains from farmers at remunerative prices
   b) Distribution of food-grains to consumers at affordable prices
   c) Maintenance of food buffers for food security
   d) Price stability.
2. Food Corporation of India (FCI) is the nodal agency that undertakes procurement and storage of foodgrain.
3. The distribution of foodgrains is done under the National Food Security Act, 2013 (NFSA) and other welfare schemes of the Government.
4. Sale of wheat and rice is undertaken through Open Market Sale Scheme (OMSS) (Domestic) so as to check inflationary trend in prices of foodgrains.

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<th>Table 8: Production of Urea, DAP and Complex Fertilizers (in LMT)</th>
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<tr>
<td>Urea</td>
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<tr>
<td>DAP</td>
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<td>Complex Fertilizers</td>
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*Upto October, 2019
Foodgrains Stocking Norms for the Central Pool

1. The Buffer Norms were revised in 2015 and have been renamed as Foodgrain Stocking Norms.

2. It is aimed to meet the prescribed minimum stocking norms for food security and emergency situations arising out of unexpected crop failure, natural disasters etc.

3. During the year 2019-20, Centre has allocated 603.88 lakh tonnes of foodgrains to States/ UTs under NFSA and other Welfare Schemes as on 31st December 2019.

Economic Cost of Food Grains to FCI

1. The Economic Cost of foodgrains consists of three components
   a) Pooled cost of grains
   b) Procurement incidentals
   c) Cost of distribution.

2. The pooled cost of food grains is the weighted MSP of the stock of foodgrains available with FCI at the time of calculating the economic cost.

3. The economic cost for both wheat and rice increased significantly during the last few years due to increase in MSPs and proportionate increase in the incidentals.

Food Subsidy

1. Food subsidy comprises of
   i) Subsidy provided to FCI for procurement and distribution of wheat and rice under NFSA and other welfare schemes and for maintaining the strategic reserve of foodgrains and
   ii) Subsidy provided to States for undertaking decentralized procurement.

2. The acquisition and distribution costs of foodgrains for the central pool together constitute the economic cost.

3. The difference between the per quintal economic cost and the per quintal Central Issue Price (CIP) gives the quantum of food subsidy.

4. Food subsidy incurred by the Government has risen substantially over the years. The gap between the economic cost and Central Issue Price (CIP) has widened because
   a) Rise in the economic cost over the same period.
   b) CIP have not been revised since 2013. [Wheat CIP- 200/quintal and 300/quintal for rice].

Storage

1. The storage capacity of FCI, a part of warehousing capacity available with the Central and State Warehousing Corporations and private sector are used for storing foodgrains for central pool.

2. Under the Private Entrepreneurs Guarantee Scheme (PEG), the construction of Godowns has been undertaken in PPP mode in many states to augment the existing storage capacity.
3. **Central Sector Scheme** (erstwhile Plan Scheme) is implemented in the North Eastern States along with a few other States.

4. An action plan for construction of steel silos for a capacity of 100 LMT in PPP mode for modernizing storage infrastructure has been approved.

5. FCI is implementing an **Online Depot Management System** (ODMS) to automate the entire process of depot operations including receipt of foodgrains at the depot, storage, maintenance activities.

**Way forward**

1. Realisation of the objective of doubling farmers’ income necessitate addressal of the basic challenges of agriculture and allied sector such as less investment, water conservation etc.

2. Allied sectors such as animal husbandry, dairying and fisheries sectors need to be given a boost to provide an assured secondary source of employment and income.

3. Coverage of food processing sector needs to be scaled up to create an additional source of market for agricultural commodities.

4. As the proportion of small and marginal holdings is significantly large, land reform measures like freeing up land markets can help farmers in improving their income.

5. The coverage of irrigation facilities needs to be extended while ensuring an effective water conservation mechanism.

6. An inclusive approach to provision for agricultural credit has to be undertaken to address the issue of skewness in its regional distribution.

7. Apart from measures in operation aimed at improving productivity and its marketing, efforts of farmers need to be supplemented with better coverage of direct income/investment support.

8. The rates under NFSA and the coverage need to be revisited.
Industry and Infrastructure

1. Industrial sector performance is critical to achieving the goal of making India a US $5 trillion economy.
2. It has an impact on the overall growth of national output and employment through its backward and forward linkages with the other two sectors of the economy.
3. It contributes close to 30% of total GVA. But the sector is vulnerable to several internal and external economic challenges affecting its overall performance.

Trends in Industrial Sector

1. Industrial sector performance in terms of its contribution in Gross Value Addition (GVA) improved in 2018-19 over 2017-18.
2. But as per the estimates of Gross Domestic Product by National Statistical Office (NSO), the real GVA of industrial sector grew by 1.6% in first half of 2019-20, compared to 8.2% in 2018-19.
3. The low growth in industrial sector is primarily due to negative growth registered by manufacturing sector in the first half of 2019-20.
4. Overall, IIP growth has moderated to 3.8% in 2018-19 compared to 4.4% in 2017-18. During the current year 2019-20, it grew at 0.6% as compared to 5.0% in the corresponding period of last year.

5. The moderation in growth is mainly arising from
   a) Subdued manufacturing activities due to slower credit flow to medium and small industries
   b) Reduced lending by NBFCs owing to liquidity crunch
   c) Tapering of domestic demand for key sectors such as automotive sector, pharmaceuticals and machinery and equipment
   d) Volatility in international crude oil prices
   e) Prevailing trade related uncertainties
   f) Under-performance of exports of key labour-intensive sectors such as gems & jewellery, basic metals, leather products and textile products during the current financial year.

| Table 2: Index of Industrial Production (IIP) Growth Rates (in per cent) |
|----------------|----------------|----------------|----------------|----------------|----------------|
| General Index  |        |         |         |         |         | 5.0     | 0.6     |
| Sectoral Classification |
| Mining         | 14.4   | 14.3    | 14.5    | 14.3    | 14.3    | 3.7     | -0.1    |
| Manufacturing  | 77.6   | 77.8    | 77.4    | 77.6    | 77.6    | 4.9     | 0.9     |
| Electricity    | 8.0    | 8.3     | 8.2     | 8.1     | 8.1     | 5.2     | 6.6     |
| Use Based Classification |
| Primary goods  | 34.0   | 34.3    | 34.9    | 34.3    | 34.3    | 3.5     | 4.8     |
| Capital goods  | 8.2    | 8.3     | 8.2     | 8.0     | 8.0     | 2.7     | 7.2     |
| Intermediate goods | 17.2 | 17.1    | 17.3    | 17.2    | 17.2    | 0.9     | 0.7     |
| Infrastructure/ construction goods | 12.3 | 12.2    | 12.3    | 12.3    | 12.3    | 5.6     | 8.3     |
| Consumer durables | 12.8  | 12.4    | 12.9    | 12.8    | 12.8    | 0.8     | 5.5     |
| Consumer non-durables | 15.3  | 15.4    | 15.7    | 15.4    | 15.4    | 4.0     | 4.0     |

Source: NSO.

6. Growth of capital goods and consumer durables declined by 11.6% and 6.5% respectively during the current financial year 2019-20.
7. Consumer durables segment was hit mainly due to lack of demand from the household sector especially in Automobile industry.
Consumer Durables are manufactured items, typically cars or household appliances, that are expected to have a relatively long useful life after purchase.

8. The growth of infrastructure/construction goods declined by 2.7% in the current financial year 2019-20.
9. Intermediate goods, consumer non-durable and primary goods registered a growth of 12.2%, 3.9% and 0.1% respectively.

Eight Core Industries
1. The Index of Eight Core Industries measures the performance of eight core industries i.e., Coal, Crude Oil, Natural Gas, Refinery Products, Fertilizers, Steel, Cement and Electricity.
2. The industries included in the Index of Eight Core Industries comprise 40.27% weight in the IIP.
3. Growth of Eight Core Industries stood flat during the current financial year during April-November period, while it grew at 5.1% during the corresponding period of the previous year.

<table>
<thead>
<tr>
<th>Positive growth</th>
<th>Negative growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>i) Fertilizers</td>
<td>i) Coal</td>
</tr>
<tr>
<td>ii) Steel</td>
<td>ii) Crude oil</td>
</tr>
<tr>
<td>iii) Electricity</td>
<td>iii) Natural gas</td>
</tr>
<tr>
<td></td>
<td>iv) Refinery products</td>
</tr>
</tbody>
</table>

5. Factors that impacted the coal sector are
   a) Excessive rainfall during monsoon
   b) Law and order problem in mining areas
   c) Strikes
6. Crude oil industry show contractionary trend owing to operational issues like power shutdowns, electrical faults due to rains/winds/thunderstorms, etc.

Performance of CPSEs and corporate sector
1. As per the Department of Public Enterprises, there are 348 CPSEs as on April 2019, of this, 249 are in operation, 86 CPSEs are yet to start commercial operations and 13 CPSEs are under liquidation.
2. Out of 249 operating CPSEs, as many as 178 showed profit during 2018-19, 70 CPSEs incurred losses during the year and 1 CPSE has shown neither profit nor loss.
3. As per Reserve Bank of India (RBI) studies on Corporate Performance, demand conditions for the manufacturing sector weakened in Q2 of 2019-20.
4. Petroleum products, iron and steel, motor vehicles and other transport equipment companies were the major contributors to slowdown.

Gross Capital Formation in Industrial Sector
1. As per National Statistics Organisation, the rate of growth of GCF in industry has registered a sharp rise from (-) 0.7% in 2016-17 to 7.6% in 2017-18
2. It shows upward momentum of investment in industry.

<table>
<thead>
<tr>
<th>Industry</th>
<th>2015-16*</th>
<th>2016-17#</th>
<th>2017-18@</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry</td>
<td>11.1</td>
<td>-0.7</td>
<td>7.6</td>
</tr>
<tr>
<td>Mining &amp; Quarrying</td>
<td>-19.6</td>
<td>16.4</td>
<td>7.1</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>11.4</td>
<td>1.3</td>
<td>8.0</td>
</tr>
<tr>
<td>Electricity, Gas, Water Supply &amp; Other Utility Services</td>
<td>22.4</td>
<td>-12.9</td>
<td>6.1</td>
</tr>
<tr>
<td>Construction</td>
<td>2.6</td>
<td>10.1</td>
<td>8.4</td>
</tr>
</tbody>
</table>

Source: NSO.
Credit Flow to the Industrial sector
1. Growth in gross bank credit flow to the industrial sector, on a year-on-year (y-o-y) basis, rose to 2.7% in September 2019 as compared to 2.3% in September 2018.

2. Credit flow to industries like wood and wood products, all engineering, cement and cement products, construction and infrastructure increased in September 2019 as compared to last year.

3. Mining & quarrying, textiles, petroleum, coal products & nuclear fuel, glass & glassware and basic metal & metal products contracted in the same period.

4. Credit flow to industries like food processing, chemicals & chemical products, vehicles, vehicles parts & transport equipment registered lower growth in September 2019 compared to last year.

Ease of Doing Business
1. Several industry specific reform initiatives taken since 2014 have significantly improved the overall business environment.

2. It is reflected in India’s improved ranking to 63rd position in the World Bank’s Doing Business 2020 Report.

3. Emphasis has been given on simplification and rationalization of the existing rules and introduction of information technology to make governance more efficient and effective.

4. The ranking is based on 10 indicators which span the life cycle of a business. India has improved its rank in 7 out of 10 indicators and has moved closer to international best practices.

Start-up India
1. Startups drive economic growth, create employment and foster a culture of innovation.

2. In order to promote innovation and entrepreneurship among enterprising youth, Government of India announced the ‘Startup India, Stand-up India’ initiative.

3. As on January 2020, 27,084 startups were recognized across 551 districts, 55% of which are from Tier I cities, 45% from Tier II and Tier III cities.

4. Steps have been taken for easing regulations such as
   a) Exemptions from Income tax on investments raised by startups
   b) Implementation of 32 regulatory reforms to improve Ease of Doing Business for startups
   c) Self-certification regime for six labour laws and three environmental laws
   d) Startup India Hub as ‘One Stop Shop’ for the startup ecosystem

5. Maharashtra, Karnataka and Delhi are the top three performers in terms of State-wise distribution of recognized startups in India.

6. As per industry wise distribution of recognized startups, IT Services accounted for 13.9% followed by Healthcare and Life Sciences and education.
Foreign Direct Investment (FDI)
1. It is a major driver of economic growth as it enhances productivity by bringing capital, skills and technology to the host country.
2. The Government is playing a proactive role in investment promotion through a liberal FDI policy.
3. Up to September 2019, total FDI Equity inflows were US$26.10 billion as compared to US$22.66 billion during 2018-19 up to September 2018.
4. Out of this FDI Equity inflows, nearly 80% have come mainly from Singapore, Mauritius, Netherlands, USA and Japan.

Sector wise issues and initiatives
Steel
1. India stood at 2nd position in the production of crude steel. It is also the 3rd largest consumer of the finished steel after China and USA.
2. But its per capita consumption was only 74.1 kg during 2018-19.

Coal
1. Overall production of raw coal in India during the year 2018-19 showed a growth of 8.1%.
2. In the current year 2019-20 (April-November), growth rate of all India coal production was declined (-5.3%) which is attributable to heavy and unseasonal rains.
3. The gap between demand and supply of coal in the country is currently being met through coal imports by consuming sectors.

Micro, Small & Medium Enterprises (MSME)
1. Micro, Small and Medium Enterprises (MSMEs) contribute significantly in the economic and social development of the country by fostering entrepreneurship.
2. It generates largest employment opportunities at comparatively lower capital cost, next only to agriculture.
3. Government is committed to support it for better credit flow, technology upgradation, ease of doing business and market access.

Textile and Apparels
1. Textiles contributed 18.0% of manufacturing and 2.0% of GDP in 2017-18. The share of textiles and clothing in India’s total exports was 12% in 2018-19.
2. The sector is the biggest employer after agriculture.
3. Exports of textile and clothing products including handicrafts from India have registered a growth of 3% in 2018-19 from 2017-18.
Infrastructure

1. Investment in infrastructure is necessary for growth. Inadequate transport infrastructure leads to bottlenecks in the supply of raw materials and movement of finished goods to the marketplace.

2. Power shortages lead to dependence on expensive captive power, which results in high costs and lack of competitiveness for the economy.

3. The price that farmers get for their produce is depressed if there is no connectivity through good quality rural roads, which keeps rural incomes less.

4. So, there is provision of adequate infrastructure which is essential for growth and for making growth inclusive. India recently launched the National Infrastructure Pipeline for period 2020-2025.

National Infrastructure Pipeline 2020-2025

1. To achieve the GDP of $5 trillion by 2024-25, India needs to spend about $1.4 trillion over these years on infrastructure.

2. To implement an infrastructure program of this scale, it is important that projects are adequately prepared and launched.

3. To draw up the National Infrastructure Pipeline (NIP) for each of the years from FY 2019-20 to FY 2024-25, an inter-ministerial Task Force was set up in September 2019.

4. Expected benefits
   a) Enable well-prepared infrastructure projects which will create jobs
   b) Improvement in ease of living
   c) Equitable access to infrastructure for all, thereby making growth more inclusive.

5. NIP also intends to facilitate supply side interventions in infrastructure development to boost short-term as well as the potential GDP growth.

6. The NIP has projected total infrastructure investment of 102 lakh crore during the period FY 2020 to 2025 in India.

7. Energy (24%), Roads (19%), Urban (16%), and Railways (13%) amount to over 70% of the projected capital expenditure during the said period.

8. Central Government (39%) and State Government (39%) are expected to have equal share in funding of the projects followed by the Private Sector (22%).

Sectoral Developments

Road transport

1. It is the dominant mode of transportation in terms of its contribution to Gross Value Added (GVA) and traffic share.

2. Of the 4.77% share of transport sector in the GVA for 2017-18, share of road transport is the largest, followed by Railways, air transport and water transport.

3. As per the National Transport Development Policy Committee Report, road transport is estimated to handle 69% and 90% of the countrywide freight and passenger traffic, respectively.

4. As on 31.3.2018, India had a road network of about 59.64 lakh km. The total length of National Highways was 1.32 lakh km as on March 1, 2019.
5. The pace at which roads have been constructed has grown significantly from 17 kms per day in 2015-16 to 29.7 kms per day in 2018-19.
6. Total investment in the Roads and Highway sector has gone up more than three times in five-year period of 2014-15 to 2018-19.

Railways
1. Indian Railways (IR) with over 68,000 route kms is the third largest network in the world under single management.
2. Indian Railways is the world’s largest passenger carrier and 4th largest freight carrier.
3. Safety is accorded the highest priority by Indian Railways and steps are being undertaken on a continuous basis to prevent accidents and to enhance safety of the passengers.
4. During 2018-19, consequential train accidents decreased from 73 to 59 in comparison to the corresponding period of the previous year.
5. Regular intensive campaigns have been organized with the objective to achieve significant and sustainable improvements in cleanliness standards.
6. 1,253 stations have been identified for development under Adarsh Station Scheme for modernization or upgradation
7. A dedicated Special Purpose Vehicle (SPV), Indian Railway Station Development Corporation (IRSDC) Limited has been set up to carry out modernization of railway stations.

Civil Aviation
1. India is the 3rd largest domestic market for civil aviation in the world. India has 136 commercially managed airports by Airports Authority of India (AAI) and 6 under Public Private Partnerships (PPP).
2. USA is the largest domestic market in the world. China is the second largest domestic market.
3. On airport connectivity, India stood first along with seven others (USA, China, Japan, UK, etc.) in the Global Competitiveness Report 2019 of World Economic Forum.
4. To ease the strain on existing airport capacities, 100 more airports are to be made operational by FY 2023-24.
5. To double the fleet of Indian carries steps are taken like easing leasing and financing from Indian shores in conformance with the provisions of the
   a) **Cape Town Convention** and **Protocol on Aircraft Equipment**
   b) Efficient use of air traffic rights
   c) Encouraging domestic and international passenger and goods transfers
   d) Rationalizing the tax regime

**Shipping**
1. Shipping is essential to both commodity and services trade of any country. Around 95% of India’s trade by volume and 68% in terms of value is transported by sea.
2. India’s share in total world dead weight tonnage (DWT) is only 0.9% as on January 2019 according to Institute of Shipping Economics and Logistics.
3. As on 30th September 2019, India had a fleet strength of 1,419 ships. The existing Indian fleet is aging with the average age increasing from 15 years (1999) to 19.71 years as on October 2019.
4. Along with capacity enhancement of major ports, steps are taken to improve the operational efficiencies through mechanization, digitization and process simplification.

**Telecom sector**
2. The wireless telephony now constitutes 98.27 per cent of all subscriptions whereas share of landline telephones now stands at only 1.73 per cent.
3. The overall tele-density in India stands at 90.45 per cent with the rural tele-density lesser than urban tele-density at the end of September 2019.
4. The private sector dominates with a share of 88.81% while the share of public sector was 11.19%.
5. The number of internet subscribers (both broadband and narrowband put together) significantly increased at the end of June 2019 as compared 2014.
6. India is the **global leader in monthly data consumption** with average consumption per subscriber per month increasing 157 times between 2014 to 2019. The cost of data has also reduced.
7. Challenges
   a) Tariffs wars
   b) High competition among players
   c) Price cutting by the Telecom Service Providers (TSPs)

**Petroleum and Natural Gas**
1. India is the 3rd largest energy consumer in the world after USA and China. It has a share of 5.8% of the world’s primary energy consumption.
2. India’s energy requirement is fulfilled primarily by Coal, Crude Oil, Renewable Energy and Natural Gas. But India’s oil production is one of the lowest and has been declining constantly.
3. The reduction in crude oil production may be attributed to natural decline in ageing and matured fields and no major discoveries.
4. Proven reserves of crude oil have been declining since 2014 till 2018. It has seen a reversal in 2019 may be as a result of the reforms undertaken by Ministry of Petroleum such as
   a) Exploration and licensing policy to enhance exploration activities
   b) Attract domestic and foreign investment
   c) Accelerate domestic production of oil and gas from existing fields.
5. India is the 4th largest in the world after the United States, China and Russia in **Refinery capacity**, which increased in 2017-18 compared to 2018-19.
6. There is a need to augment refining capacity to meet growing demand for petroleum fuels and petrochemicals.
7. In order to encourage the participation of private entities in oil and natural gas sector, Government has undertaken several reform measures which include
   a) Simplified fiscal and contractual terms
b) Bidding of exploration blocks under Category II and III sedimentary basins without any production or revenue sharing to Government

c) Early monetization of discoveries by extending fiscal incentives

d) Incentivizing gas production including marketing and pricing freedom

e) Induction of latest technology and capital

f) More functional freedom to National Oil Companies for collaboration

g) Private sector participation for production enhancement methods in nomination fields

**Power Sector**

1. It has witnessed a paradigm shift over the years due to the constant efforts of Government to foster investment in the sector.

2. India has improved its ranking to **76th position** in the **Energy Transition Index** published by the **World Economic Forum** (WEF)

3. Along with universal electrification, significant progress has been made in generation and transmission of electricity.

4. In fuel-wise and sector-wise distribution thermal power accounts for about 63% of total installed capacity and roughly half of the generation capacity is in the private sector.

![Figure 30: Total Power Generation Capacity as on October 2019](image)

5. **Saubhagya scheme** was launched to achieve **universal household electrification** by providing last mile connectivity by March-end 2019 for making growth inclusive and promoting ease of living.

6. All the States have reported electrification of all households on Saubhagya portal except few households in Left Wing Extremism (LWE) affected Bastar region of Chhattisgarh by deadline.

7. 18 States have reported supply of more than 20 hours of electricity supply while remaining states have reported about 15 or more hours.

**Mining Sector**

1. As per available information, India produces as many as 95 minerals which include

   a) 4 hydrocarbon energy minerals (coal, lignite, petroleum & natural gas)

   b) 5 atomic minerals (ilmenite, rutile, zircon, uranium, and monazite)

   c) 10 metallic, 21 non-metallic and 55 minor minerals.

2. It provides basic raw materials to many important industries.

**Housing and Urban Infrastructure**

1. India is one of the fastest growing countries in the world with rapid urbanization. Urban population comprises about 31% of the total population.

2. Urban habitats and cities are the epicentres of economic growth which has contributed significantly to the Indian economy. Over 60% of India’s current GDP comes from the cities.
3. The construction sector accounts for 8.2% of GDP which includes housing and employs about 12% of the workforce. So, the investment in such schemes triggers multiplier effect on the overall economy.

4. Pradhan Mantri Aawas Yojana Urban (PMAY-U) was launched to provide pucca house with basic amenities to all eligible urban poor and is being implemented through four verticals.

5. **Affordable Housing Fund** (AHF) is created in the National Housing Bank (NHB) with an initial corpus of 10,000 crore using priority sector lending shortfall of banks.

6. The fund is used for micro financing of the HFCs and NBFCs which provide loans at reduced interest rate to the individual borrowers for promoting home ownership.

7. Under the Smart City Mission, 5,151 projects worth more than 2 lakh crores are at various stages of implementation in the 100 cities.
1. The Gross Value Added (GVA) from the, services sector growth (YoY) continued to moderate during 2019-20 reaching 6.9% from 7.5% in 2018-19.

2. Sub-sector growth in ‘financial services, real estate & professional services’ decelerated to 6.4%.

3. Growth in ‘trade, hotels, transport, communication & broadcasting services’ remained on a downward trend, reaching 5.9% in 2019-20.

4. ‘Public administration, defence & other services’ accelerated during 2019-20, with a growth of 9.1%.

5. Services sector continues to outperform agriculture and industry sector growth, contributing around 55% to total GVA growth.

### Table 1: Services Sector Performance in GVA

<table>
<thead>
<tr>
<th>Sector</th>
<th>Share in GVA (per cent)</th>
<th>Growth (per cent YoY)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Services</td>
<td>55.3</td>
<td>8.1</td>
</tr>
<tr>
<td>Trade, hotels, transport, communication &amp; services related to broadcasting</td>
<td>18.3</td>
<td>7.8</td>
</tr>
<tr>
<td>Financial, real estate &amp; professional services</td>
<td>21.3</td>
<td>6.2</td>
</tr>
<tr>
<td>Public administration, defence &amp; other services</td>
<td>15.6</td>
<td>11.9</td>
</tr>
</tbody>
</table>

Source: Ministry of Statistics and Programme Implementation (MoSPI).
Note: Shares are in current prices and growth in constant 2011-12 prices; RE: Revised Estimates. PE: Provisional Estimates, 1st AE: 1st Advance Estimates.


7. The growth in rail freight has picked up in November 2019 after contracting in the past few months.

8. Bank credit to the services sector has continued to decelerate, which was 4.8% as on November 2019 as compared to 28.1% a year ago.

### Table 2: Growth (YoY) in Bank Credit to Services Sub-Sectors

<table>
<thead>
<tr>
<th>Services Sub-Sectors</th>
<th>Fiscal Year-to-Date Apr-Nov 2019 (per cent)</th>
<th>Fiscal Year-to-Date Apr-Nov 2018 (per cent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Services</td>
<td>-2.2</td>
<td>9.9</td>
</tr>
<tr>
<td>Transport Operators</td>
<td>0.9</td>
<td>6.6</td>
</tr>
<tr>
<td>Computer Software</td>
<td>2.8</td>
<td>2.8</td>
</tr>
<tr>
<td>Tourism, Hotels &amp; Restaurants</td>
<td>11.4</td>
<td>5.3</td>
</tr>
<tr>
<td>Shipping</td>
<td>-13.5</td>
<td>1.1</td>
</tr>
<tr>
<td>Professional Services</td>
<td>-0.5</td>
<td>8.4</td>
</tr>
<tr>
<td>Commercial Real Estate</td>
<td>9.1</td>
<td>1.0</td>
</tr>
<tr>
<td>Bank credit to NBFCs</td>
<td>14.0</td>
<td>14.1</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>2.3</td>
<td>2.3</td>
</tr>
<tr>
<td>Wholesale Trade*</td>
<td>-13.2</td>
<td>3.1</td>
</tr>
<tr>
<td>Other Services</td>
<td>-20.7</td>
<td>16.9</td>
</tr>
</tbody>
</table>

Source: RBI.
Note: *Other than food procurement.

9. The deceleration in credit growth has been driven by ‘Professional Services’, ‘Shipping’, ‘Transport Operators’ and ‘Wholesale Trade’.

10. Bank credit to ‘Tourism, Hotels & Restaurants’, ‘Commercial Real Estate’ and ‘Non-Banking Financial Corporations (NBFCs)’ remained high as compared to the other sub-sectors.
State wise Performance
1. Services sector accounts for more than 50% of the Gross State Value Added (GSVA) in 15 out of the 33 states and UTs.
2. In 8 states, services sector account for more than 60% of GSVA. Chandigarh and Delhi have high share of services in GSVA of more than 80% while Sikkim’s share remains the lowest at 26.8%.
3. States with relatively lower share of services in GSVA, such as Jharkhand, Odisha, Andhra Pradesh, Uttarakhand, Gujarat, Arunachal Pradesh and Goa, have witnessed strong services sector growth in the recent years.

FDI Inflows into Services Sector
1. Gross FDI equity inflows into the services sector witnessed a strong recovery during after decline.
2. Gross FDI equity inflows increased by 33%, accounting for about two-thirds of the total gross FDI equity inflows into India.
3. The FDI equity inflows was driven by strong inflows into subsectors such as ‘Information & Broadcasting’, ‘Air Transport’, ‘Telecommunications’, ‘Consultancy Services’ and ‘Hotel & Tourism’.

Trade in Services Sector
1. Services exports during 2019 maintained their momentum with a growth (YoY) of 6.4%.
2. The rise in export growth of travel, software, business and financial services offset the contraction in export growth of insurance and other services (including construction, etc.).
3. The robust growth in business services exports was driven by higher receipts for R&D services, professional and management consultancy services, and technical and trade related services.
4. The shares of traditional services, such as transport, and value-added services, such as software, financial services and communications, have witnessed a decline.
5. The share of travel services has increased over the past decade and that of business services has risen slightly.
6. Yet, India’s services exports remain concentrated in software services, accounting for twice the share of the second-largest component, business services.
7. Overall services exports are susceptible to changes in exchange rate, global IT spending, stringent USA visa norms, and rising cost pressures due to increased local hiring in export destinations.
8. Even though global IT spending is expected to accelerate in 2020, rising production costs and uncertainty related to Brexit and USA’s visa norms pose downward risks to India’s software exports.

Services Import Growth
1. Services import growth (YoY) during 2019 was 7.9%.
2. Increased business services payments were primarily driven by professional, management and consultancy services, and technical and trade related services.
3. The services trade surplus, largely driven by the surplus in software services, financed about 48% of India’s merchandise deficit, partially offsetting the impact on the current account deficit.
4. Besides software services, India has small trade surplus in travel, insurance and financial services.
5. Within travel services, persistent trade deficit in education services with education imports (expenditure incurred by Indian students traveling abroad for education) is seen.
6. From a long-run perspective, focus on boosting services exports during bilateral trade negotiations can mitigate bilateral trade deficits with trading partners.
7. World trade volume for goods and services are projected to recover in 2020 following a deceleration in 2019.
8. Global uncertainty, protectionism and stricter migration rules would be key factors in shaping India’s services trade ahead.

Commercial Services Exports
1. The increasing role of services in economic activity is also reflected in the growing importance of services in global trade and in India’s trade.
2. Comparing, 2005-11 and 2012-2018, both commercial services exports and goods exports have slowed in India and globally in the recent years.
3. But while merchandise exports were growing faster than commercial services exports during 2005-11, commercial services exports have outperformed goods exports lately.

4. This has led to an increase in the share of commercial services exports in overall exports both in India and globally.

| Table A: Performance of Services and Merchandise Exports in India and World |
|---------------------------------|---------------------------------|---------------------------------|
| Country | Growth in merchandise exports (per cent) | Growth in commercial services exports (per cent) | Share of commercial services exports in total exports (per cent) |
| World   | 9.7           | 0.8           | 8.9           | 4.4           | 19.8  | 22.9 |
| India   | 20.4          | 1.5           | 17.7          | 5.9           | 34.2  | 38.6 |

Source: WTO. Note: Calculations are on calendar year basis.

India’s share in world export
1. India’s share in world’s commercial services exports has risen steadily over the past decade to reach 3.5% in 2018, twice the share in merchandise exports at 1.7%.
2. India now ranks 8th among the world’s largest commercial services exporters.
3. Among the major services-exporting economies, India also has a relatively high share of services exports in overall exports.

Figure A: Share of Commercial Services Exports in Total Exports for Major Economies in 2018

Offshore Fund Management Industry
1. Financial services sector has been identified as one of the Champion Services Sectors by the government to enable on-shoring of the India-related financial services that are currently being rendered from global financial centres.
2. Despite strong performance in services exports, financial services exports have remained stagnant.
3. As a result, the share of financial services exports in overall services exports has almost halved.
4. Asset management activity of offshore funds currently being rendered from global financial centres and could be potentially brought on-shore.
5. These offshore funds are located in tax and regulatory friendly jurisdictions, such as Singapore, Luxembourg, Ireland, Hong Kong and London.
6. Offshore funds pool investments from offshore investors and invest in India via the Foreign Portfolio Investment (FPI), Private Equity (PE) or Foreign Venture Capital Investment (FVCI) route.

7. Such funds include the India-focused offshore funds which invest only in India, and the Regional/Global diversified funds with partial investment allocation to India.

8. As foreign investment into India continues to increase, on-shoring the fund management activity of offshore funds to India would benefit the economy by:
   a. Continuing expansion of India’s asset management industry that is witnessing significant growth in the recent years.
   b. On-shoring Global fund management activity of almost 25% of FPI, PE and FVCI funds’ total Assets Under Management (AUM) to India by 2020, and a greater share in the coming years.
   c. Generating employment for high-skilled finance professionals, including fund managers and support service providers, such as custodians, fund specialists, fund accountants, fund administrators, risk managers, research analytics professionals and tax advisors.
   d. Exporting financial services and receiving management fee by fund managers.

Government Measures
1. At present, the fund management activity is being undertaken in offshore jurisdictions since their presence in India would create tax implications for the offshore fund’s profits.

2. In 2016, the government introduced ‘safe harbour’ provisions as Section 9A, Income Tax Act (1961) under which offshore fund would not be considered a ‘resident’ for tax purposes.

3. But most offshore funds have been unable to utilize the ‘safe harbour’ provisions since they have to satisfy a total of 17 stringent eligibility conditions.

4. Some of these conditions are not in sync with the structure and investment pattern of offshore funds and nature of FPI inflows into India, and lead to dual compliance burden for offshore investors.

5. They are also required to comply with RBI and SEBI regulations related to end-investors in FPIs and round-tripping.

6. In comparison, with USA, UK, Singapore and Hong Kong, the eligibility conditions under ‘safe harbour’ provisions are fewer and less stringent in many cases.


8. Operationalizing the ‘safe harbour’ regime would enable on-shoring the fund management activity of India-focused offshore funds, and potentially, regional/global offshore funds as well.

9. It would also enable greater delegation of fund management activity of FPIs to India as FPI inflows continue to rise in the coming years.

Subsector Wise Performance and Recent Policies
1. Most of the sub-sectors of the services sector witnessed a moderation in growth during 2019-20.

2. The growth in tourism sector decelerated in 2019-20 with weaker growth in foreign tourist arrivals and in foreign exchange earnings from tourism.

3. In the ports sector, growth in port traffic softened in 2019-20 from the previous year.

4. The number of wireless phone subscriptions and wireless internet subscriptions increased in 2019-20.
Performance of India’s Key Services Sub-Sectors

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<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>IT – BPM*</td>
<td>IT-BPM service revenues:</td>
<td>US$ billion</td>
<td>118.6</td>
<td>129.4</td>
<td>139.9</td>
<td>151.4</td>
<td>161.8 (E)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Exports</td>
<td>US$ billion</td>
<td>97.7</td>
<td>107.8</td>
<td>116.1</td>
<td>125.1</td>
<td>135.5 (E)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Domestic</td>
<td>US$ billion</td>
<td>20.9</td>
<td>21.6</td>
<td>23.8</td>
<td>26.3</td>
<td>26.3 (E)</td>
<td>-</td>
</tr>
<tr>
<td>Aviation**</td>
<td>Airline passengers:</td>
<td>million</td>
<td>115.8</td>
<td>135.0</td>
<td>158.4</td>
<td>183.9</td>
<td>204.2</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Domestic</td>
<td>million</td>
<td>70.1</td>
<td>85.2</td>
<td>103.7</td>
<td>123.3</td>
<td>140.3</td>
<td>95.7</td>
</tr>
<tr>
<td></td>
<td>International</td>
<td>million</td>
<td>45.7</td>
<td>49.8</td>
<td>54.7</td>
<td>60.6</td>
<td>63.9</td>
<td>15.6</td>
</tr>
<tr>
<td>Telecom</td>
<td>Wireless phone subscriptions</td>
<td>million</td>
<td>969.9</td>
<td>1033.6</td>
<td>1170.2</td>
<td>1183.4</td>
<td>1161.8</td>
<td>1154.6</td>
</tr>
<tr>
<td></td>
<td>Wireless internet subscriptions</td>
<td>million</td>
<td>283.3</td>
<td>322.2</td>
<td>400.6</td>
<td>472.7</td>
<td>615.0</td>
<td>665.4</td>
</tr>
<tr>
<td>Tourism</td>
<td>Foreign tourist arrivals*</td>
<td>million</td>
<td>7.7</td>
<td>8.0</td>
<td>8.8</td>
<td>10.0</td>
<td>10.6</td>
<td>8.6</td>
</tr>
<tr>
<td></td>
<td>Foreign exchange earnings from tourism</td>
<td>US$ billion</td>
<td>19.7</td>
<td>21.0</td>
<td>22.9</td>
<td>27.3</td>
<td>28.6</td>
<td>24.0</td>
</tr>
<tr>
<td>Shipping</td>
<td>Port traffic</td>
<td>million tonnes</td>
<td>581.3</td>
<td>606.5</td>
<td>648.4</td>
<td>679.4</td>
<td>699.1</td>
<td>524.0</td>
</tr>
</tbody>
</table>

Source: Ministry of Tourism, Indian Ports Association, Ministry of Shipping, Directorate General of Civil Aviation, Telecom Regulatory Authority of India, NASSCOM.

Note: *Excluding hardware & e-commerce; **Domestic passengers carried by Indian carriers and international passengers carried by Indian and foreign carriers; *On calendar year basis; #For Apr-Nov 2019 period; @For Apr-Jun 2019 period; †For Apr-Oct 2019 period; SAs of Nov 2019; §§For Jan-Oct 2019 period; ‡SAs of Sep 2019; ††For Apr-Dec 2019 period; E: Estimate.

Tourism Sector
1. The tourism sector is a major engine of growth, contributing to GDP, foreign exchange earnings and employment.
2. In India, the tourism sector witnessed a strong performance from 2015 to 2017, with high growth in foreign tourist arrivals. However, decelerated since then to 5.2% in 2018 and 2.7% in 2019.
3. This trend is not unique to India, as the growth in international tourist arrivals globally also slowed from 7.1% in 2017 to 5.4% in 2018.
4. India ranked 22nd in the world in terms of international tourist arrivals in 2018, improving from the 26th position in 2017.

5. India now accounts for 1.24% of world’s international tourist arrivals and 5% of Asia & Pacific’s international tourist arrivals.

6. India ranks 13th in the world and 7th in Asia & Pacific in terms of tourism foreign exchange earnings, accounting for close to 2% of the world’s tourism foreign exchange earnings.

7. Foreign tourists from the top 10 countries visiting India - Bangladesh, USA, UK, Sri Lanka, Canada, Australia, Malaysia, China, Germany and Russia - accounted for 65% of the total foreign tourist arrivals in India in 2018.

8. Among the foreign tourists, 62.4% tourists visited for leisure, holiday and recreation, 16.3% for business purposes, and 13.5% was Indian diaspora.

Trends at State Level

<table>
<thead>
<tr>
<th>Top Five states attracting tourists</th>
<th>Domestic (Accounting 65%)</th>
<th>International (Accounting 67%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tamil Nadu</td>
<td>Tamil Nadu</td>
<td></td>
</tr>
<tr>
<td>Uttar Pradesh</td>
<td>Maharashtra</td>
<td></td>
</tr>
<tr>
<td>Karnataka</td>
<td>Uttar Pradesh</td>
<td></td>
</tr>
<tr>
<td>Andhra Pradesh</td>
<td>Delhi</td>
<td></td>
</tr>
<tr>
<td>Maharashtra</td>
<td>Rajasthan</td>
<td></td>
</tr>
</tbody>
</table>

1. To facilitate international tourism, India introduced the e-Tourist Visa regime with five sub-categories i.e. ‘e-Tourist Visa’, ‘e-Business Visa’, ‘e-Medical Visa’, ‘e-Conference Visa’ and ‘e-Medical Attendant Visa’.

2. The e-Visa scheme is now available for 169 countries.

Information Technology and Business Process Management (IT-BPM) Services

1. The Indian IT-BPM Industry has been the flag-bearer of India’s exports for the past two decades, with industry size reaching about US$ 177 billion in March 2019.

2. The sector contributes significantly to the economy via employment growth and value addition.

3. IT services constituted 51% of the IT-BPM sector in 2018-19, followed by Software & Engineering Services (20.6% share) and BPM Services (19.7%).
4. About 83% of the IT-BPM industry (excluding hardware) continues to be export driven, with export revenues in excess of US$ 135 billion in 2018-19.

5. Out of the total exports of the IT-BPM sector in 2018-19, IT services accounted for 55% of the exports, and BPM and Software Products & Engineering services accounted for the remaining 45%.

**Export Destinations and Start-ups**
1. USA accounts for the bulk of exports accounting for 62% of total ITBPM exports (excluding hardware) in 2018-19. 
2. UK is the second largest export market with a share of around 17%. Europe (excluding UK) and Asia-Pacific account for 11.4 % and 7.6% of the export respectively. 
3. Policy initiatives to drive innovation and technology adoption in the IT-BPM sector are **Start-up India, National Software Product Policy, and removal of issues related to Angel Tax.**
4. The Indian start-up ecosystem is the third largest in the world with 24 unicorns, though the gap with the largest (China: 206) and second largest (USA: 203) markets remains significant.
5. Cities such as Bangalore, Delhi NCR and Mumbai account for around 55% of the total start-ups in India.

**Port and Shipping Services**
1. India has a 0.9% share in world fleet as on January 2019. India has 13 major ports and about 200 non-major ports.
2. The total cargo capacity of Indian ports more than doubling from 2010 to 2019.
3. Ports such as Paradip, Chennai, Vishakhapatnam, Deendayal (Kandla) and JNPT had the highest cargo capacities as of March 2019.

4. Growth in overall port traffic witnessed an acceleration between 2013-14 and 2016-17 but has decelerated since 2017-18.

5. Traffic handled at major ports grew at close to 1% in April-December 2019.

6. The turnaround time of ships, which is a key indicator of efficiency of the ports sector, has been on a continuous decline, almost halving between 2010-11 and 2018-19 to 2.48 days.

7. The shipping turnaround time is lowest at the Cochin, New Mangalore, V.O. Chidambararanar and Chennai ports, and the highest at the Kolkata port.

8. As per the latest UNCTAD data, the median ship turnaround time globally is 0.97 days, suggesting that India has room to further improve upon the efficiency at ports.

![Figure 7: Growth (YoY) in Port Traffic](image)

**Space Sector**

1. India’s space programme has grown exponentially since its modest beginnings five decades ago, moving from providing simple mapping services in the 1960s to many more uses currently.

2. This includes design and development of a series of launch vehicles, satellites for earth observation, telecommunication and broadband, navigation, meteorology and space science, R&D in space sciences, and most recently, planetary exploration.

3. India spent about US$ 1.5 billion on space programmes in 2018. However, India’s government space expenditure still lags behind that of the major players, such as USA and China.

<table>
<thead>
<tr>
<th>Country</th>
<th>Expenditure (US$ billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA (NASA)</td>
<td>19.5</td>
</tr>
<tr>
<td>China (CNSA)</td>
<td>11.0</td>
</tr>
<tr>
<td>Russia (Roskosmos)</td>
<td>3.3</td>
</tr>
<tr>
<td>India (ISRO)</td>
<td>1.5</td>
</tr>
</tbody>
</table>

4. India has launched around 5-7 satellites per year in the recent years with no failures, barring one in 2017.

5. On the other hand, Russia, USA and China dominate the satellite launching services with 20, 31 and 39 satellites respectively in 2018.

6. Among the key areas of focus in the space programme are
   a. The satellite communication, with INSAT/GSAT system as the backbone to address the needs for telecommunication, broadcasting and satellite-based broadband infrastructure in the country.
   b. Earth observation and using space-based information for weather forecasting, disaster management, national resource mapping and governance.
c. Satellite-aided navigation including GAGAN and NavIC. GAGAN, a joint project between ISRO and the Airports Authority of India (AAI).

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<tr>
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</thead>
<tbody>
<tr>
<td>USA</td>
<td>19(0)</td>
<td>23(1)</td>
<td>20(2)</td>
<td>22(0)</td>
<td>29(0)</td>
<td>31(0)</td>
</tr>
<tr>
<td>Russia</td>
<td>34(2)</td>
<td>37(3)</td>
<td>29(3)</td>
<td>19(1)</td>
<td>20(1)</td>
<td>20(1)</td>
</tr>
<tr>
<td>China</td>
<td>15(1)</td>
<td>16(0)</td>
<td>19(0)</td>
<td>22(2)</td>
<td>18(2)</td>
<td>39(1)</td>
</tr>
<tr>
<td>European Space Agency</td>
<td>6(0)</td>
<td>7(0)</td>
<td>9(0)</td>
<td>9(0)</td>
<td>9(0)</td>
<td>8(1)</td>
</tr>
<tr>
<td>India</td>
<td>3(0)</td>
<td>4(0)</td>
<td>5(0)</td>
<td>7(0)</td>
<td>5(1)</td>
<td>7(0)</td>
</tr>
<tr>
<td>Japan</td>
<td>3(0)</td>
<td>4(0)</td>
<td>4(0)</td>
<td>4(0)</td>
<td>7(1)</td>
<td>6(0)</td>
</tr>
<tr>
<td>Others</td>
<td>1(0)</td>
<td>1(0)</td>
<td>3(0)</td>
<td>2(0)</td>
<td>2(1)</td>
<td>3(0)</td>
</tr>
<tr>
<td>Total</td>
<td>81(3)</td>
<td>92(4)</td>
<td>86(5)</td>
<td>85(2)</td>
<td>90(6)</td>
<td>114(3)</td>
</tr>
</tbody>
</table>

Source: ISRO.
Note: The numbers in brackets show satellite launch failures.

Future of Space Sector
1. Globally, space activity is undergoing tremendous changes in the recent years in terms of players and applications.
2. There is change from government agencies pursuing national needs to non-governmental/private sector agencies aggressively pursuing commercial needs.
3. Space systems are also being actively used for national security purposes by most countries.
4. The global space economy for 2018 is about US$ 360 billion, which includes space systems manufacturing and space-based services.
5. ISRO has been pursuing the policy of engaging Indian industries in delivering space related goods and services and following areas have been identified for attracting private investments:
   a. Production of Polar Satellite Launch Vehicle (PSLV),
   b. Satellite integration and assembly,
   c. Production of composite materials,
   d. Production of solid, liquid, cryogenic and semi-cryogenic propellants and
   e. Production of electronic packages, Testing & Evaluation for avionics and satellite subsystems.
Social Infrastructure, Employment & Human Development

Trends in Social sector expenditure

1. Investment in social infrastructure is a pre-requisite for inclusive growth and employment.
2. The increase in expenditure on social services sector (education, health and others) affirms the commitment of the government towards social well-being.
3. The expenditure on social services by Centre and States as a proportion of Gross Domestic Product (GDP) has increased from 6.2 to 7.7% during the period 2014-15 to 2019-20.
4. The share of expenditure on social services out of total budgetary expenditure increased to 26% in 2019-20 (BE) from 23.4% in 2014-15.

Table 1: Trends in Social Service Sector Expenditure by General Government (Combined Centre and States)

<table>
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<tr>
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</thead>
<tbody>
<tr>
<td>Total Budgetary Expenditure (₹ in Lakh crore)</td>
<td>32.85</td>
<td>37.61</td>
<td>42.66</td>
<td>45.16</td>
<td>53.17</td>
<td>60.72</td>
</tr>
<tr>
<td>Expenditure on Social Services</td>
<td>7.68</td>
<td>9.16</td>
<td>10.41</td>
<td>11.40</td>
<td>14.47</td>
<td>15.79</td>
</tr>
<tr>
<td>of which: i) Education</td>
<td>3.54</td>
<td>3.92</td>
<td>4.35</td>
<td>4.83</td>
<td>5.81</td>
<td>6.43</td>
</tr>
<tr>
<td>ii) Health</td>
<td>1.49</td>
<td>1.75</td>
<td>2.13</td>
<td>2.43</td>
<td>2.92</td>
<td>3.24</td>
</tr>
<tr>
<td>iii) Others</td>
<td>2.65</td>
<td>3.48</td>
<td>3.93</td>
<td>4.13</td>
<td>5.74</td>
<td>6.12</td>
</tr>
</tbody>
</table>

As percentage to GDP

| Expenditure on Social Services | 6.2     | 6.6     | 6.8     | 6.7     | 7.6        | 7.7        |
| of which ii) Education       | 2.8     | 2.8     | 2.8     | 2.8     | 3.1        | 3.1        |
| ii) Health                  | 1.2     | 1.3     | 1.4     | 1.4     | 1.5        | 1.6        |
| iii) Others                 | 2.1     | 2.5     | 2.6     | 2.4     | 3.0        | 3.0        |

As percentage to total expenditure

| Expenditure on Social Services | 23.4    | 24.3    | 24.4    | 25.2    | 26.2       | 26.0       |
| of which ii) Education       | 10.8    | 10.4    | 10.2    | 10.7    | 10.5       | 10.6       |
| ii) Health                  | 4.5     | 4.7     | 5.0     | 5.4     | 5.3        | 5.3        |
| iii) Others                 | 8.1     | 9.3     | 9.2     | 9.1     | 10.4       | 10.1       |

As percentage to social services

| Expenditure on Social Services | 46.1    | 42.8    | 41.8    | 42.4    | 40.1       | 40.7       |
| of which ii) Education       | 19.4    | 19.1    | 20.5    | 21.4    | 20.2       | 20.5       |
| ii) Health                  | 34.6    | 38.0    | 37.7    | 36.2    | 39.7       | 38.8       |

Source: Budget Documents of Union and State Governments, Reserve Bank of India.

HUMAN DEVELOPMENT

1. India’s rank in the Human Development Index (HDI) has improved to 129 from 130 in 2017 out of a total of 189 countries.
2. The value of HDI for India reached to 0.647 in 2018. Between 1990 and 2018, India’s HDI value increased by 50 per cent (from 0.431 to 0.647).
3. India is among the fastest improving countries with 1.34% average annual HDI growth. It is ahead of China (0.95), South Africa (0.78), Russian Federation (0.69) and Brazil (0.59).
4. To sustain this momentum in human development and to further accelerate it, the role of public sector in delivery of social services such as education and health is critical.

**Education for all**

1. Sustainable Development Goal (SDG)4 seeks to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all by 2030.

2. In India, free and compulsory education is provided to students between age group of 6 to 14 years under the Right to Free and Compulsory Education (RTE) Act, 2009.

3. The Act stipulates norms and standards for a recognized school imparting elementary education. It provides for an all-weather building in elementary schools.

4. Unified District Information System for Education (U-DISE) collects data on various indicators on school education. As per U-DISE, 2017-18 (provisional),
   a) 98.38% of Government elementary schools have girls' toilet
   b) 96.23% of Government elementary schools have boys' toilet
   c) 97.13% of Government elementary schools have provision of drinking water facility
   d) 58.88% of Government elementary schools have boundary wall
   e) 56.72% of Government elementary schools have playground facility
   f) 79.23% of Government elementary schools have library and 61.75% schools are having electricity connection.

5. The progress in school and higher education infrastructure and gross enrolment at all levels.

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**Figure 1: Average annual HDI growth rate during 2010-2018 (per cent)**

![Figure 1: Average annual HDI growth rate during 2010-2018 (per cent)](image)

Source: HDR, 2019

---

**Figure 2: Gross Enrolment Ratio (GER) at all India level (in per cent)**

![Figure 2: Gross Enrolment Ratio (GER) at all India level (in per cent)](image)


Note: GER of Higher Education is for 2018-19 and calculated for 18-23 age group.

a) It highlights some challenges in terms of affordability, quality, distribution of educational infrastructure etc.

b) As reflected in NSS Survey (2017-18), there were about 13.6% persons of age 3 to 35 years who were never enrolled. It is because of

i. Lack of interest in education

ii. Financial constraints

c) Among those who were enrolled, drop-out rate was as high as 10% at primary level, 17.5% at upper primary/middle and 19.8% at secondary level.

**Expenditure on education**

1. Poor and underprivileged section of people prefer to engage themselves in economic activities for their survival.

2. Absence of suitable financial support system and high burden of course fee especially in higher education pushes them out of the education system.

3. Composition of various components of education expenditure indicates that the course fees (50.8% at all India level) contributes about half of the average expenditure of a basic course.

![Figure 3: Distribution of average expenditure relating to basic course per student pursuing general course during the current academic year (2017-18) by item of expenditure (per cent)](image)

Source: Key Indicators of Household Social Consumption on Education in India, NSS 75th Round (2017-18)

4. The proportion of course fee is also high in rural and urban areas. The second largest component of average expenditure on education by student is books, stationary and uniform.

5. Students pursuing education in private aided institutions spends significantly higher as compared to government institutions across rural-urban India.
Various Initiatives
1. The initiatives taken to provide the quality education in government schools in affordable and competitive manner.

For secondary education

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Description</th>
</tr>
</thead>
</table>
| 1. Samagra Shiksha Abhiyan | i) It subsumes three erstwhile Centrally Sponsored Schemes of - Sarva Shiksha Abhiyan (SSA) - Rashtriya Madhyamik Shiksha Abhiyan (RMSA) - Teacher Education (TE).  
ii) It envisages school education as a continuum from pre-school to senior secondary level and aims to ensure inclusive and equitable quality education.  
iii) States and UTs are supported for strengthening of existing government schools, and for creation and augmentation of infrastructure facilities.  
iv) The scheme envisages an annual recurring composite school grant varying from 25,000/- to 1,00,000/- per annum depending upon the enrolment of students for all government schools.  
v) Each school is required to spend at least 10 per cent of the composite school grant on activities related to Swachhata Action Plan. |
| 2. Navodaya Vidyalaya Scheme | i) It provides for opening of one Jawahar Navodaya Vidyalaya (JNV) in each district of the country to bring out the best of rural talent.  
ii) Its significance lies in the selection of talented rural children as the target group.  
iii) It aims to provide them quality education comparable to the best in a residential school system. |
| 3. NISHTHA (National Initiative for School Heads’ and Teachers’ Holistic Advancement) | i) It is being launched under the Centrally Sponsored Scheme of Samagra Shiksha in 2019-20 to improve learning outcomes at the elementary level.  
ii) The Integrated Teacher Training Programme envisages to build the capacities of around 42 lakh teachers and head of schools etc.  
iii) The aim of this training is to motivate and equip teachers to encourage and foster critical thinking in students, handle diverse situations and act as first level counsellors. |
| 4. Pradhan Mantri Innovative Learning Program (DHRUV) | It has been launched to identify and encourage talented students to enrich their skills and knowledge. |
| 5. Digital Infrastructure for Knowledge Sharing (DIKSHA) platform | i) The broad base technology aided teaching and learning, States and Uts are being actively involved to contribute and use the Digital Infrastructure for Knowledge Sharing (DIKSHA) platform.  
ii) Steps are also being taken to improve the quality and diversify the nature of e-content on DIKSHA.  
iii) Other e-content sites like e-Pathshala, National Repository of Open Educational Resources (NROER) are also being integrated with DIKSHA to ensure easy access |
### For Higher education

<table>
<thead>
<tr>
<th>For Higher education</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pandit Madan Mohan Malviya National Mission on Teachers and Teaching (PMMMNMTT) which</td>
</tr>
<tr>
<td>i) It aims at building a strong professional cadre of teachers by setting performance standards and creating top class institutional facilities for innovative teaching and professional development of teachers in higher education. ii) Teachers of existing Central, State Universities/Educational Institutions including private institutions can participate in capacity building programmes as well as induction training.</td>
</tr>
</tbody>
</table>

| 2. Higher Education Financing Agency (HEFA) |
| i) It has been established to provide sustainable financial model for higher education institutions, Kendriya Vidyalayas, Navodaya Vidyalayas, AIIMS and other educational institutions. ii) The objective is to fund projects to the tune of 1 lakh crore by 2022. |

| 3. National Educational Alliance for Technology (NEAT) |
| i) The government announced a Public-Private Partnership (PPP) Scheme for using technology for better learning outcomes in Higher Education. ii) The objective is to use Artificial Intelligence to make learning more personalised and customised as per the requirements of the learner. iii) This requires development of technologies in Adaptive Learning to address the diversity of learners. iv) EdTech companies would be responsible for developing solutions and manage registration of learners through the NEAT portal. |

| 4. Education Quality Upgradation and Inclusion Programme (EQUIP). |
| i) The Department of Higher Education, in the Ministry of Human Resource Development has finalized and released a five-year vision plan named EQUIP. ii) It is a vision plan aiming at ushering transformation in India’s higher education system by implementing strategic interventions in the sector over the next five years (2019-2024). |

| 5. SWAYAM 2.0 |
| It has been launched to offer online degree programmes with enhanced features and facilities by top ranking universities. |

| 6. Deeksharambh |
| It is a guide to student induction programme |

| 7. PARAMARSH’ scheme |
| It has been launched to mentor institutions seeking National Assessment and Accreditation Council accreditation |

### 2. New Education Policy 2019

a) It has been formulated to meet the changing dynamics of the requirements of the population with regard to quality education, innovation and research.

b) It aims to make India a knowledge superpower by equipping its students with the necessary skills and knowledge.

c) It aims to eliminate the shortage of manpower in science, technology, academics and industry.

### SKILL DEVELOPMENT

1. According International Labour Organizations (ILO) report, future labour market situation of young persons is highly influenced by
   a) Skills and competencies acquired through education
   b) Access the labour market

2. Skill training enhances their employability and equip them to tackle requirements of labour market.

3. According to the Periodic Labour Force Survey (PLFS) 2017-18 only 13.53% of the workforce in the productive age group of 15-59 years has received training.
   a) Formal vocational/technical training- 2.26% and Informal training- 11. 27%
   b) A large section among informally trained workers (55.9%) received it either through self-learning (28.66%) or hereditary (27.24%) and about 38.51% have received it on-the-job.
State-wise proportion

Figure 4: State-wise workforce (15-59 years) who received training through formal/informal sources (per cent)

Source: Annual Report, PLFS (2017-18)

4. Pradhan Mantri Kaushal Vikas Yojana (PKKVY)
   a) Under the Skill India Mission, the Government implements the Pradhan Mantri Kaushal Vikas Yojana (PMKVY) 2016-20
   b) The scheme enables large number of prospective youth to take up Short Term Training (STT) and Recognition of Prior Learning (RPL) through training centers throughout the country.
   c) Under PMKVY (2016-20), around 69.03 lakh candidates have been trained throughout the country till November 2019.

Status of Employment in India
1. Employment generation coupled with improving employability has been the priority of the Government.
2. Various steps are being taken for generating employment in India like
   a) Encouraging private sector of economy
   b) Fast-tracking various projects involving substantial investment
   c) Increasing public expenditure on schemes
3. These policy interventions have changed the nature of employment significantly.
   a) Share of regular wage or salaried employees has gone up from 18% in 2011-12 to 23% in 2017-18.
   b) In absolute terms, there was a significant jump of around 2.62 crore new jobs in this category with 1.21 crore in rural areas and 1.39 crore in urban areas.
   c) Proportion of women workers in regular wage/salaried employees’ category have increased by 8 percentage points from 13% in 2011-12 to 21% in 2017-18.
   d) The proportion of total self-employed workers however remained unchanged at 52% during this period
   e) The distribution of workers in casual labour category decreased by 5 percentage points from 30% in 2011-12 to 25% in 2017-18 with the decline being in rural areas.

Formalization of Jobs
1. Government of India has been making efforts to formalize the economy through following initiatives,
   a) Introduction of GST
   b) Digitization of payments
   c) Direct benefit transfer of subsidies/scholarships/ wages & salaries to bank accounts
   d) Opening of Jan Dhan accounts
   e) Extending social security coverage to more workers
2. As a result of these initiatives, an increase in formal employment is taking place.
3. According to the Annual Survey of Industries (ASI), there has been an increase in employment in the organized manufacturing sector.

4. Between 2014-15 and 2017-18, the total number of workers engaged in the sector increased by 14.69 lakh while total persons engaged inclusive of employers, increased by 17.33 lakh.

### Figure 6: Employment in Organized Manufacturing in India (in lakh)

![Graph showing employment trends](image)

Source: Annual Survey of Industries various issue (P. Provisional Estimates), MoSPI

### Steps Taken Towards Formalisation of the Labour Market

1. For portability of Provident Fund accounts, EPFO launched a ‘Universal Account Number’ service for contributing members.

2. Government was paying 12% of employer contribution to EPFO in respect of the new employees drawing salary up to 15,000 per month for first three years under Pradhan Mantri Rozgar Protsahan Yojana (PMRPY). The scheme has ended on 31st March 2019.

3. Mandatory wage ceiling of subscription to EPS increased from 6,500 to 15,000 per month.

4. MUDRA and STAND-UP India for creating formal credit to businesses.

5. National Career Service (NCS) Project was launched in 2015. It provides a host of career-related services such as dynamic job matching, career counselling, job notifications and information.

5. To indicate the extent of formalization of workforce, the Government publishes the monthly data indicating the number of new subscribers who have availed benefits under major schemes,

   a) Employees’ Provident Fund (EPFO)
   b) Employees’ State Insurance Scheme (ESIC)
   c) National Pension Scheme (NPS).

6. EPFO has more than 6 crore active members with at least one-month contribution during the year.

### Figure 7: Net Employees’ Provident Fund Subscriber (in lakh)

![Bar chart showing net subscribers](image)

Source: EPFO
6. The pay roll data of EPFO for 2019-20 in December 2019 shows a net increase of 55.6 lakhs as EPFO subscriber compared to 61.12 lakhs in 2018-19.

GENDER DIMENSION OF EMPLOYMENT
1. Gender equality in labour market is considered to be smart economics to
   a) Achieve faster economic growth and wealth creation
   b) Impact upon poverty
   c) Increase in income of the household
   d) Increase spending on health and education of children

2. As per World Bank, no country can develop and achieve its full potential if half of its population is locked in non-remunerative, less productive and non-economic activities.

3. According to PLFS estimates, female labour force participation rate (LFPR) for productive age-group (15-59 years) as per usual status shows a declining trend.
4. Female labour force participation declined by 7.8% points from 33.1% in 2011-12 to 25.3% in 2017-18.
5. Female LFPR is higher in rural areas as compared to urban areas. However, the rate of decline was also sharper in rural areas compared to urban areas.

Initiatives to Improve Female Work Participation
1. Safety of Women at Workplace
   a) The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 covers all women, irrespective of their age or employment status and protects them against sexual harassment at all workplaces both in public and private sector, organized or unorganized.
   b) The Act mandates all the workplace having more than 10 workers to constitute Internal Complaint Committee (ICC) for receiving complaints of sexual harassment.
   c) Appropriate Government is authorized to constitute Local Complaint Committee (LCC) in every district which will receive complaints from organizations having less than 10 workers.

2. Mahila Shakti Kendra Scheme:
   a) The scheme aims to empower rural women through community participation.
   b) It envisages community engagement through College Student Volunteers to empower rural women in aspirational districts as part of block level initiatives.

3. Provision of safe and affordable accommodation:
   To provide safe and affordable accommodation to working women, Working Women Hostels have been established. These hostels have day care facility for the children of inmates too.

4. One Stop Centre (OSC)
   a) The scheme facilitates access to an integrated range of services including police, medical, legal, psychological support and temporary shelter to women affected by violence.
   b) One Stop Centres are being set up in all districts of the country.

5. Female Entrepreneurship
   Schemes like MUDRA, Stand Up India and Mahila e-Haat (online marketing platform to support women entrepreneurs/ SHGs/NGOs) have been launched.

6. Rashtriya Mahila Kosh (RMK)
   It is an apex micro-finance organization that provides micro-credit at concessional terms to poor women for various livelihood and income generating activities.

7. Prime Minister’s Employment Generation Programme (PMEGP):
   a) Under the scheme, women entrepreneurs are provided 25% and 35% subsidies for the project set up in urban and rural areas respectively.
   b) For women beneficiaries, own contribution is only 5% of the project cost while for general category it is 10%.
HEALTH FOR ALL
1. Government has taken following major initiatives for Healthy India.
   a) Introduction of National Health Policy, 2017
   b) Ayushman Bharat with its two components
       i) Health & Wellness Centres to provide comprehensive primary health care
       ii) Pradhan Mantri Jan Arogya Yojana (PMJAY) to provide health cover
2. The focus of healthcare is on four important pillars
   a) Preventive healthcare
   b) Affordable healthcare
   c) Build medical infrastructure and mission mode interventions for maternal health
   d) Combat communicable and non-communicable disease.

Preventive Health Care
1. To promote preventive healthcare, one and half lakh Ayushman Bharat Health and Wellness Centres (AB-HWCs) are proposed to be set up by 2022.
2. A total of 28,005 have already been set up as on January 2020 to deliver comprehensive Primary Health Care services with focus on universal high-quality screening, prevention of common NCDs.

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Parameter</th>
<th>1991</th>
<th>2001</th>
<th>2011</th>
<th>Current level</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Crude Birth Rate (per 1000 population)</td>
<td>29.5</td>
<td>25.4</td>
<td>21.8</td>
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<tr>
<td>2.</td>
<td>Crude Death Rate (per 1000 population)</td>
<td>9.8</td>
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<td>7.1</td>
<td>6.3</td>
</tr>
<tr>
<td>3.</td>
<td>Total Fertility Rate (per 1000 population)</td>
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<td>3.1</td>
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<td>2.2</td>
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<td>4.</td>
<td>Maternal Mortality Ratio (per 1,000 live births)</td>
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<td>167</td>
<td>122</td>
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<tr>
<td>5.</td>
<td>Infant Mortality Rate (per 1000 live births)</td>
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<td>66</td>
<td>44</td>
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<td>Rural</td>
<td>87</td>
<td>72</td>
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<tr>
<td></td>
<td>Urban</td>
<td>53</td>
<td>42</td>
<td>29</td>
<td>23</td>
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<tr>
<td>6.</td>
<td>Child (0-4 years) Mortality Rate (per 1000 children)</td>
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<td>19.3</td>
<td>12.2</td>
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<td>Total</td>
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<td>64.3</td>
<td>67.5</td>
<td>69.0</td>
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<tr>
<td></td>
<td>Rural</td>
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<td>63.0</td>
<td>66.3</td>
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<tr>
<td></td>
<td>Urban</td>
<td>65.9</td>
<td>68.6</td>
<td>71.2</td>
<td>72.4</td>
</tr>
</tbody>
</table>

3. Under Mission Indradhanush, 3.39 crore children and 87.18 lakh pregnant women in 680 districts across the country have been vaccinated.
4. New vaccines such as Measles-Rubella (MR), Pneumococcal Conjugate Vaccine (PCV), Rotavirus Vaccine (RVV) and Inactivated Polio Vaccine (IPV) have been introduced.
5. Government has adopted a multi-sectoral approach and is increasingly synergizing its efforts with other Mission Mode initiatives- Eat Right, Fit India, Anaemia Mukt Bharat, Poshan Abhiyan etc.
6. Government recently banned all commercial operations in e-cigarettes.
Health Care Affordability
1. As per the latest National Health Accounts (NHA) 2016-17, the ‘Out of pocket expenditure (OoPE)’ as a percentage of total health expenditure has declined from 64.2% in 2013-14 to 58.7% in 2016-17.
2. Primary healthcare accounts for 52.1% of India’s current public expenditure on health as per the National Health Estimates, 2016-17.
3. The National Health Policy, 2017 recommended to spend at least two third of Government’s health expenditure on primary healthcare.
4. Ayushman Bharat- Pradhan Mantri Jan Arogya Yojana (PM-JAY) is a major step towards providing affordable healthcare to the identified poor.
5. Under Free Drugs Service initiative, substantial funds have been given to States for provision of free drugs.
6. Free Diagnostics Service initiative was launched to address the high OoPE on diagnostics and improve quality of healthcare services.
7. Pradhan Mantri Bharatiya Jan Aushadhi Pariyojana (PMBJP) and Pradhan Mantri National Dialysis Programme (PMNDP) are some of the new initiatives that address the issue of high OoPE.

Medical Infrastructure
1. The doctor-population ratio in India is 1:1456 (population estimated to be 1.35 billion) against the WHO recommendation of 1:1000.
2. To address the shortage of doctors, the government has embarked on an ambitious programme for upgradation of district hospitals into medical colleges.
3. Pradhan Mantri Swasthya Suraksha Yojana (PMSSY) was launched to augment the tertiary healthcare capacity in clinical care, medical education and research in underserved areas.
4. National Medical Commission Act, 2019 was promulgated to enable constitution of National Medical Commission.
5. Government of India supports States in Health Systems Strengthening under the umbrella programme of National Health Mission (NHM).

Mission Mode Interventions
1. In order to intensify efforts towards achievement of SDGs, the Government has made a paradigm shift in the way health care is delivered.
2. The new paradigm recognizes the emerging challenges of NCDs and also targets to sustain the efforts for RMNCH+A and communicable diseases through initiatives such as
   a) Surakshit Matriiva Aashwasan (SUMAN)
   b) Social Awareness and Action to Neutralise Pneumonia Successfully (SAANS)
   c) TB Harega Desh Jeetega.

Housing For All
1. As per recent NSO survey on Housing Condition in India 2018, about 76.7% of the households in the rural and about 96.0% in the urban areas had the house of pucca structure.
2. Pradhan Mantri Awaas Yojana-Gramin (PMAY-G) and Pradhan Mantri Awaas Yojana-Urban (PMAY-U) are two important schemes for achieving the target of housing for all by 2022.
3. There is more than four times increase in number of houses completed in a year under PMAY-G from 11.95 lakh in 2014–15 to 47.33 lakh in 2018-19,
4. Under PMAY-U, against assessed demand of 1.12 crore, 1.03 crore houses were sanctioned, 61 lakh grounded for construction and 32 lakh have been delivered as in January 2020.

Drinking Water and Sanitation
1. The Department of Drinking Water and Sanitation (DDWS), Ministry of Jal Shakti launched the 10 Year Rural Sanitation Strategy (2019-2029)
2. Since the launch of the Swachh Bharat Mission-gramin in 2014, over 10 crore toilets have been built in rural areas.
3. Jal Shakti Abhiyan was launched to accelerate progress on water conservation activities in the most water stressed blocks and districts of India.