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ECONOMIC SURVEY

SUMMARY – 2015-16

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CHAPTER 2: THE CHAKRAVYUH CHALLENGE

FROM SOCIALISM WITHOUT ENTRY TO 'MARKETISM' WITHOUT EXIT

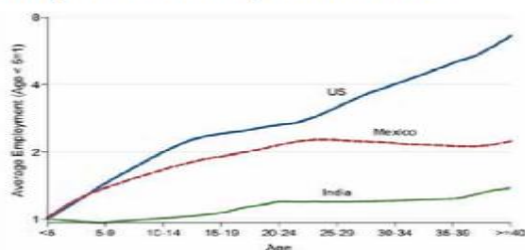
The **Charkravyuha** legend from the Mahabharata describes the ability to enter but not exit, with seriously adverse consequences. It is a metaphor for the workings of the Indian economy in the 21st century, the legacy of several decades of economic policy making.

- Since LPG reforms of 1991 our entry barriers in the economy has been reduced through following:
 - ✓ De-licensing, de-regulation, reduction in role of Public Sector Enterprise, Privatization
 - ✓ Liberal FDI norms
 - ✓ Reduction in trade barriers.
- However, exit impediments have continued. This has been described as transition from **Socialism with restricted entry to "Marketism" without Exit.**

Magnitude / Severity of the Problem

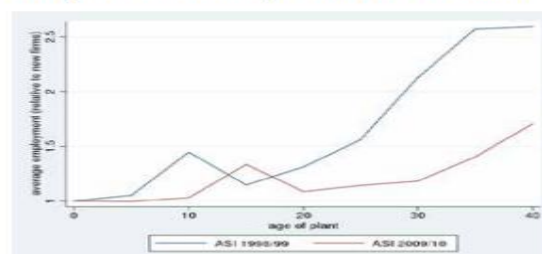
- Ideally productive and innovative firms should expand & force out unproductive ones. So, serving ones should be larger than new ones.
- However, compared to USA and even Mexico, Indian firms are merely 1.5 times larger than newer ones on an average.
- Further, India has disproportionately large share of inefficient firms with low productivity showing exit impediments.

Figure 1: Average employment of old and new plants in India, Mexico and US



Source: Hsieh and Klenow (2014).

Figure 2: Average employment of old and new plants in India, FY1999 and FY2010



Cost of impeded exit

- **Fiscal cost:** Govt supports sick and inefficient industries through subsidies (like bailouts) or through loans, tariffs etc. This increases borrowing by the government causing increase in fiscal deficit leading to increased interest rate & "crowding out" of private sector.
- **Economic cost:**
 - Vast pool of both human and capital resources are not put to best use, which comes as an opportunity cost to the economy.
 - ✓ It also provides consumers with inferior products at higher costs
 - ✓ Leads to rising NPAs and stressed balance sheets of lending banks.
- **Political cost:** Govt. trying to bail out such firms are seen as favoring the rich & corporate affecting political appeal of the govt.

Describing the problem of exit

SECTOR	INEFFICIENCY MEASURE	SOLUTION
<i>Fertilizers (inefficient firms)</i>	Estimated subsidy based on economic cost of production Rs. 23,013 crore in 2013-14.	Progress being made with neem-coating which reduces diversion, decanalisation, JAM for farmers
<i>Civil Aviation</i>	In 2013-14, the total loss was about Rs. 2400 crore; 7th straight year of loss	Strategic approach
<i>Public Sector Banks (a few banks)</i>	Capital infusion between 2009-10 and 2015-16 (H1): Rs. 1.02 lakh crore	Consolidate; Strategically disinvest; 4 R's for the NPA problem: Recognition, Recapitalization, Resolution and Reform
<i>Discoms (major loss-making states)</i>	Accumulated losses over 2008-09 and 2013-14 about Rs. 2.3 lakh crores.	Tying structural improvements with debt relief (as in UDAY). Create 'one market' in power
<i>Central Public Sector Enterprises</i>	Accumulated losses of sick units as of 2013-14: Rs 1.04 lakh crore	Allow sick CPSEs to exit. Leverage the land and capital unlocked to promote new investment
PRIVATE SECTOR		
<i>Agriculture (cereals and sugar)</i>	Over-intensive cultivation of water intensive crops has led to water tables declining at a rate of 0.3 meters per year.	Incentivize pulses over water-guzzling crops. Facilitate use of <i>drip irrigation</i>
<i>Steel</i>	Cost of production 50-75% higher for few inefficient firms in comparison to global norms.	Bankruptcy Code.
<i>Infrastructure (few large groups)</i>	As of FY15 the average interest cover is about 0.3.	Kelkar (PPP) Committee recommendations, bankruptcy code. Changing PCA
<i>Small Savings</i>	Implicit subsidy to well-off: Rs 11,900 crore.	Rationalize schemes to benefit the small savers. Make transparent true beneficiaries
ECONOMY WIDE		
<i>Trade Liberalisation</i>	Nearly highest restrictions on imports; gains from liberalisation of goods and services estimated at 1% of GDP4.	Safety nets to tackle transitory costs of greater trade liberalization and competition
<i>Labour</i>	Not enough big firms and too many small and inefficient firms	Employee-centric regulations; provision of greater choice to employees

CAUSES OF EXIT PROBLEM

In India, the exit problem arises because of three types of reasons, what might be called the three I's: interests, institutions, and ideas/ideology.

- **Interest:** Vested interest by powerful few who lobby with govt. to check exit. Eg. Fertilizer subsidies benefit rich farmers & producers so even after being inefficient govt. can't exit it because of political fallout.
- **Institution:**
 - ✓ Both weak and strong organization leads to exit problems. Eg. Debt recovery tribunals are overburdened & can't aid in recovery of bad loans.
 - ✓ Similarly strong agencies like CBI, CVC, CAG etc have caused bureaucratic inertia and status quo approach. Eg Senior bank managers are reluctant to write off loans in fear of being seen as favoring corporate. This encourages ever greening of loans & postpones exit.
- **Ideology/ Ideas:**
 - ✓ Ideas of democracy & redistribution of wealth towards vulnerable have made it difficult to phase out entitlements like MSPs, subsidies etc leading to exit problem.
 - ✓ Ideology of sanctification of SMEs has also led to their exit barriers. SMEs should be provided with requisite support & credit but should also be allowed to grow. Meanwhile unproductive one
 - ✓ It should be weeded out.

Solution

- **Avoiding exit through liberal entry:** Promoting competition through privatization & liberal FDI has led to exit of uncompetitive players. Indian aviation sector and telecom & automobile sector are examples. However, care is to be taken that privatization without sufficient players shouldn't lead to Oligarchy.
- **Direct Policy Action:**
 - ✓ Bankruptcy Law: to expedite the process of exit of non-successful entities.
 - ✓ Amendment to Prevention of Corruption Act 1988: to prevent prosecution for mere administrative errors. This would facilitate risk taking among bureaucrats
 - ✓ Creation of independent sector regulator for PPP projects & quick finalization of principles of negotiation & risk sharing between govt & private player.
- **Use of Technology & JAM (Jan Dhan, Aadhar & mobile):** Exit problems related to fertilizer, agriculture, sugar etc could be addressed through use of technology. This would check leakages & also reduce human discretions. It would also provide new ways of doing business causing an exit of inefficient firms.
- **Transparency:** Knowledge and awareness about ecological impact of growth of cereal in NW states may lead to its voluntary exit. Similarly knowledge about benefits of pulses cultivation may lead to phasing out cereals in unwarranted areas.
- **Exit as an opportunity:** Exiting inefficient firms may unleash a vast pool of resources which may be used for the economy after privatization. E.g. Land can be converted into Land Banks or to develop industries or developed into smart city. However, interest of workers, employees & reservation for vulnerable classes has to be taken care of before privatization.

ECONOMIC SURVEY 2015-16

THE CHAKRAVYUHA CHALLENGE OF THE INDIAN ECONOMY

FROM SOCIALISM WITHOUT ENTRY TO 'MARKETISM' WITHOUT EXIT"

- » The Charkravyuha legend from the Mahabharata describes the ability to enter but not exit, with seriously adverse consequences. It is a metaphor for the workings of the Indian economy in the 21st century, the legacy of several decades of economic policy making.
- » The Indian economy has made great strides in removing barriers to entry for firms, talent, and technology. Less progress has been made in relation to exit. Thus, over the course of six decades, the Indian economy moved from 'socialism with limited entry to "marketism" without exit'. Impeded exit has substantial fiscal, economic, and political costs. We document its pervasive nature which encompasses not just the public sector and manufacturing but the private sector and agriculture. A number of solutions to facilitate exit are possible. The government's initiatives including the new bankruptcy law, rehabilitation of stalled projects, proposed changes to the Prevention of Corruption Act as well as the broader JAM agenda hold the promise of facilitating exit, and providing a significant boost to long-run efficiency and growth.
- » Many sectors illustrate the Indian economy's exit problem, including banking, civil aviation, fertiliser, power, labour markets and agriculture.

CHAPTER 3: SPREADING JAM ACROSS INDIA'S ECONOMY

- Implementing Direct Benefits Transfer (DBT) at large-scale and in real-time remains one of the government's key objectives.
- Large-scale, technology-enabled, real-time Direct Benefit Transfers can improve the economic lives of India's poor, and the JAM Trinity-Jan Dhan, Aadhaar, Mobile-can help government implement them.

Requirements of JAM

- **Identification of beneficiaries;** important to prevent inclusion errors

- ✓ Need database of eligible individuals.

- Earlier databases like Ration cards suffered from inaccuracy and illegitimacy due to widespread administrative and political discretion involved.

- Now Aadhaar platform- its advantage is that it replaces human discretion with technology and thus prevents duplication.

- ✓ The government is working hard to increase the Aadhaar enrollment. More than 975 million individuals now hold an Aadhaar card.

- **Transferring money to beneficiaries:** *The Bank Challenge*

- ✓ Every beneficiary needs a bank account and the government needs their account numbers.

- ✓ This constraint has been significantly eased by the Pradhan Mantri Jan Dhan Yojana, where 120 million accounts were created in 2015 alone, at a record-setting pace of over 3 lakh accounts per day.

- ✓ However, still more needs to be done as survey shows that basic savings account penetration in most states is still relatively low – 46 per cent on average and above 75 per cent in only 2 states (Madhya Pradesh and Chhattisgarh).

- ✓ This is important to prevent exclusion errors.

- **Enabling beneficiaries to access the money:** Finally, the challenge of getting money into people's hands

- ✓ Financial inclusion is a serious problem especially in rural areas- poor connectivity (only 27% of villages have a bank within 5 kms), low financial literacy. RBI in 2015 has licensed 23 new banks- 2 universal, 11 payment banks and 10 small finance banks to increase banking penetration but this is not enough.

- ✓ The Kenyan Banking Correspondent to population ratio is 1:172. By contrast, India's average is 1:6630, less than 3 per cent of the Kenyan level.

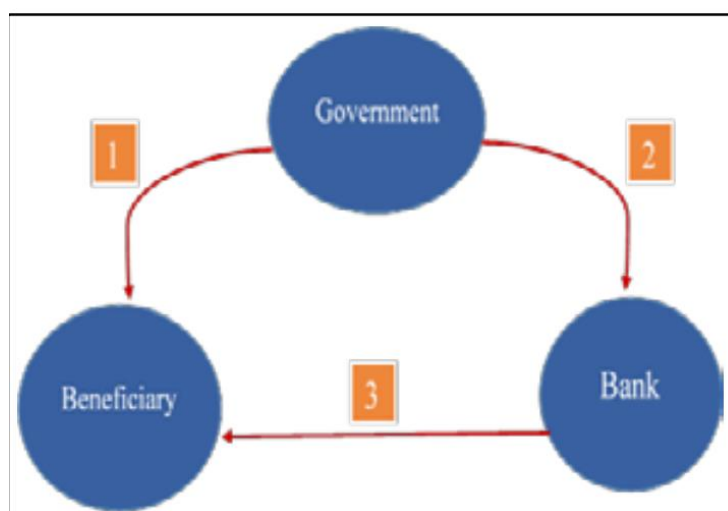
- ✓ However, mobile penetration in India is strong. Except two states (Bihar & Assam) all have a penetration higher than 60%.

- ✓ Moreover, there are approximately 1.4 million agents or service posts to serve the approximately 1010 million mobile customers in India, a ratio of about 1:720.

- ✓ India should take advantage of its deep mobile penetration and agent networks by making greater use of mobile payment technology.

- ✓ Mobiles can not only transfer money quickly and securely, but also improve the quality and convenience of service delivery. For example, they can inform beneficiaries that food supplies have arrived at the ration shop or fertilizer at the local retail outlet.

- ✓ **Steps taken-** Jan Dhan Yojana's initiatives to develop the BC space and the licensing of several mobile money operators. But this still is the weakest link.



Success of jam: use of jam in PAHAL scheme

- Earlier universal subsidy on household LPG. But 97% of the subsidy was consumed by richest 30% of the households (inclusion and exclusion errors).
- Now, with DBT in place, the government identifies beneficiaries by linking households' LPG customer numbers with Aadhaar numbers to eliminate 'ghost' and duplicate households from beneficiary rolls.
- A permanent advance was made by the government to reduce household liquidity constraint issues.
- Survey shows that JAM has helped in reducing leakages rather than excluding the poor.
- It even helped in checking the sale of unauthorized non-commercial cylinders (which are 30% cheaper) to commercial establishments.

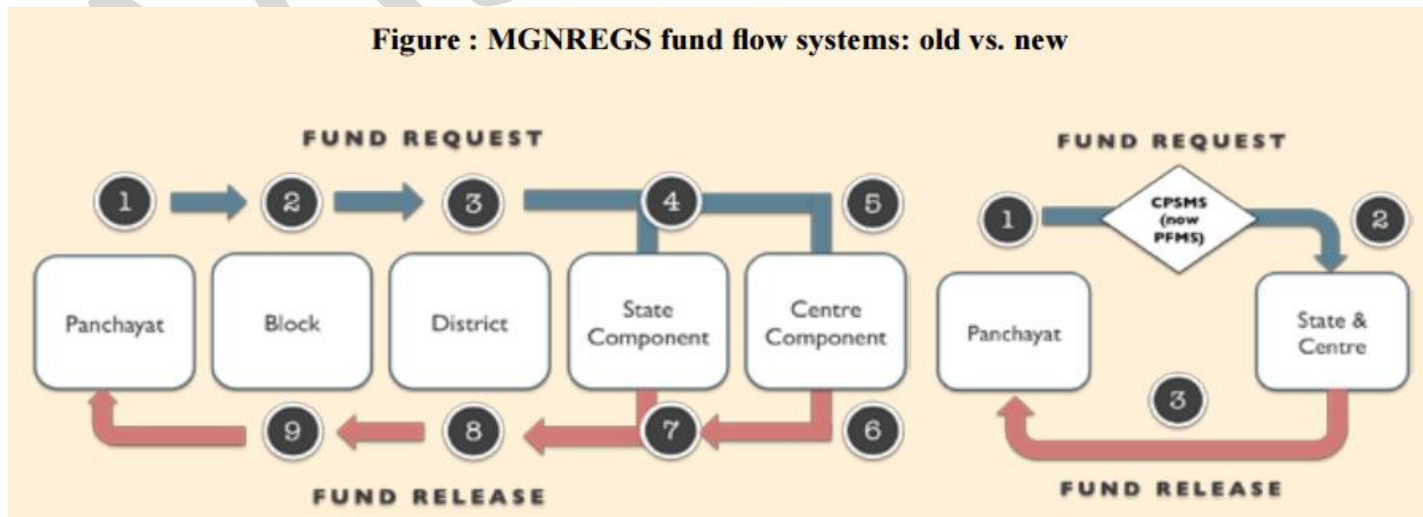
How does jam help?

- JAM offers a considerable shift from the present system of fund flow. For example the fund flow system as practiced in MNREGA can be understood by following table:

Table: Conceptual Differences in Fund Flow Systems			
Characteristic	Old system	New system	Effect
When are funds allocated?	Before spending occurs, based on forecasts	When spending occurs, in real-time	Reduced float (26%)
How do funds flow?	Level by level: Centre → State → District → Block → Panchayat;	Directly from fund pool to spender: Centre/State → Panchayat	Reduced payment delays and uncertainty
When does expenditure documentation occur?	Aggregated and ex-post: For multiple beneficiaries at a time, and after funds have been disbursed	Individually and in real-time: For every individual beneficiary's payment and in order to secure fund release	Reduced leakages (14%) and funds disbursed by 38%

- The old MNREGA system (and the current system for most schemes) has 4 major problems:
 - ✓ Float: idle funds accrue interest rates for the government as this is borrowed money
 - ✓ Leakages: Funds had to pass through multiple layers meaning more people can demand a cut to secure the release of funds.
 - ✓ Misallocation: Funds once distributed usually do not return. So forecast errors leads to misallocation of resources with idle funds sitting in some accounts and shortage in others.
 - ✓ Resource-intensity: Valuable time is spent on haggling with officials at higher administrative units, who often demand arbitrary documents for releasing funds.
- DBT can help in all these fronts and help government save money and lead to better utilization of resources.

Figure : MGNREGS fund flow systems: old vs. new



Challenges in pursuing jam in other schemes

- **First mile issues:** Beneficiary eligibility and identification
 - ✓ Unlike **PAHAL** which is a universal subsidy scheme, others target specific people and thus require detailed information about beneficiaries. For example, subsidies targeted for poor (kerosene, food) require information about their wealth and earnings, those targeted to benefit farmers and pregnant women about occupation and pregnancy status.
 - ✓ Thus, a beneficiary database is needed. The information under Social and Economic Census (**SECC**) would be helpful if continuously updated.
 - ✓ Further, some schemes benefit the households (NFSA) while other individuals. This aspect must also be considered.
- **Middle mile:** administrative challenge of coordinating government actors and the political economy challenge of sharing rents with supply chain interest groups.
 - ✓ Different ministries and state government departments share authority in administering subsidies and transfers. There will be a need to manage the coordination among these.
 - ✓ Also the supply chain interest groups like agents can create problems if their interests are threatened. Rents must be shared for reform to proceed, and thus distributors need incentives before they invest in JAM infrastructure.
- **Last mile:** Risks of excluding genuine beneficiaries especially the poor.
 - ✓ First is due to accessibility of financial channels. Even though the bank account penetration has improved, much needs to be done.
 - ✓ Also the exclusion errors increase when the population is poorer.

Where to spread the jam

- In the present scenario JAM cannot be spread to all schemes. The policy areas that appear most conducive to JAM are those where
 - ✓ Firstly, the central government has significant control (in the form of coordinating central and state government departments and also the political challenges of bringing the supply chain interest groups on board with DBT) and
 - ✓ Secondly, where leakages- and hence fiscal savings due to JAM- are high.
- The Survey identifies fertilizers and within-government fund transfers as eligible to this.
- Two JAM options
 - ✓ **DBT** i.e. Direct Benefits Transfer- in cash
 - ✓ **BAPU** i.e. **Biometrically Authenticated Physical Uptake**-beneficiaries certify their identity using Aadhaar and then physically take the subsidised goods like today.

Conclusion: The way ahead

- **JAM Preparedness Index:** The survey has studied the preparedness level of Indian states.

SPREADING JAM ACROSS INDIA'S ECONOMY

» One contribution of last year's Economic Survey was to add the phrase 'JAM'—Jan Dhan, Aadhaar, Mobile—to the Indian lexicon. The 'JAM agenda' refers to the potential of large-scale, technology-enabled, real-time cash transfers to improve the economic lives of the poor, and raise economic efficiency by reducing leakages and market distortions. Over the past year much progress has been made in spreading JAM across India's economy.

» JAM has three ingredients:

- Government must be able to identify beneficiaries
- Government must be able to transfer

money to beneficiaries

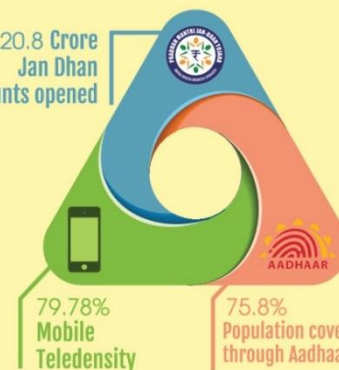
- Beneficiaries must be able to easily access their money
- » The ingredients of JAM thickened significantly in 2015. Jan Dhan and Aadhaar deepened their coverage at an astonishing rate. On

average, over 3 lakh new Jan Dhan accounts and 5 lakhs Aadhaar cards were created every day in 2015. The RBI also licensed 23 new banks, including 10 payments banks.

» Despite Jan Dhan's tremendous progress,

JAM Trinity

20.8 Crore
Jan Dhan
Accounts opened

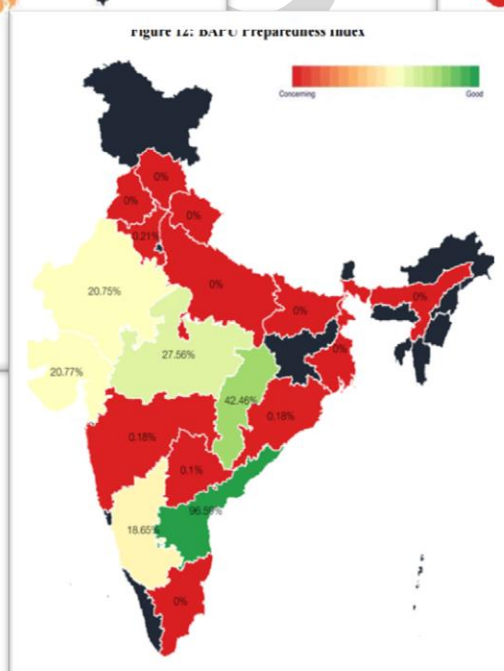
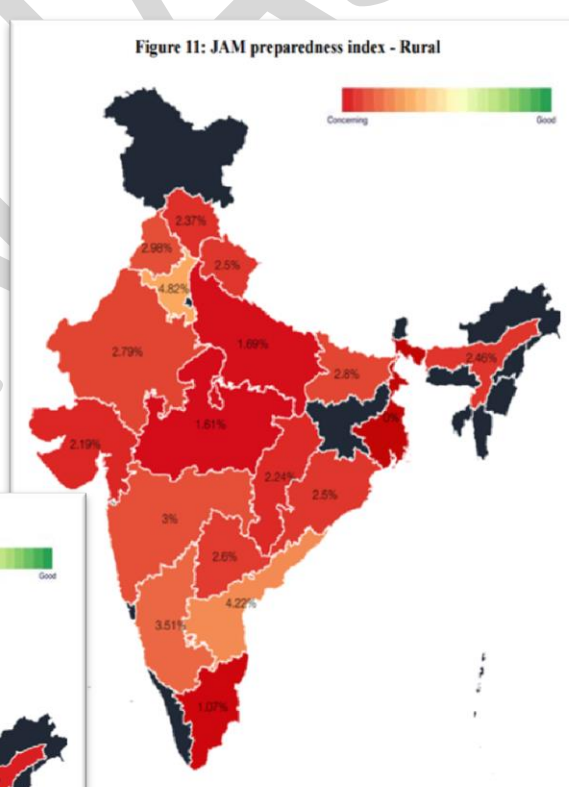
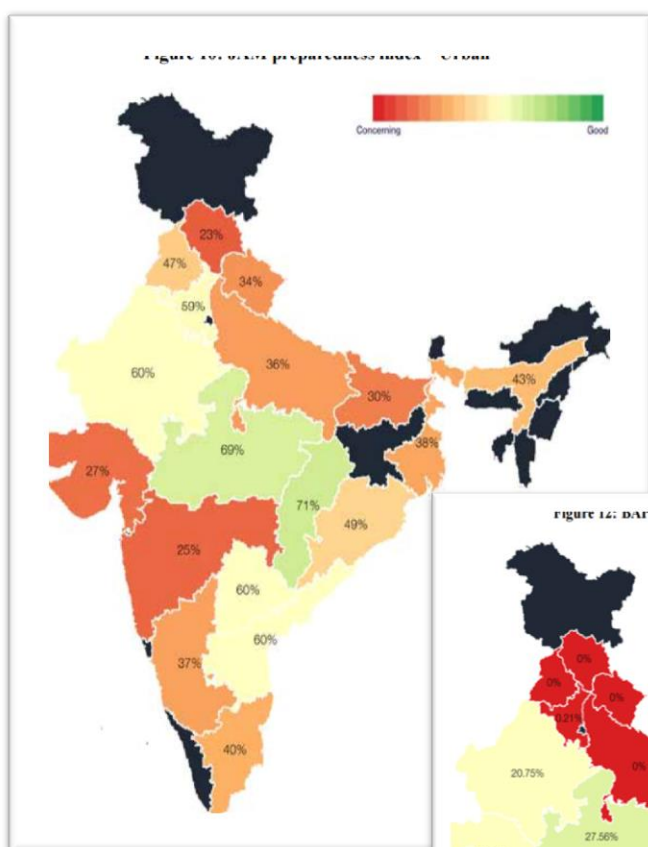


79.78%
Mobile
Teledensity

75.8%
Population coverage
through Aadhaar

- On this basis, the Survey has concluded that despite improvements in financial inclusion due to Jan Dhan there is still some way to go before bank-beneficiary linkages are strong enough to pursue DBT without committing exclusion errors. In that sense, the JAM agenda is currently jammed by the last-mile challenge of getting money from banks into beneficiaries' hands, especially in rural India.
- The centre can invest in **last-mile financial inclusion** via further improving **BC networks** and promoting the spread of mobile money. The recent licensing of banks will help. Regulations governing the remuneration of BCs may need to be reviewed to ensure that commission rates are sufficient to encourage BCs to remain active.

Table 6: Indicators in the JAM preparedness index			
	Urban DBT	Rural DBT	BAPU
Can government identify beneficiaries?	Aadhaar penetration	Aadhaar penetration	Aadhaar penetration
Authenticating transactions			POS machines
Paying beneficiaries	Basic bank account penetration	Basic bank account penetration	
Beneficiaries accessing money	BC density	BC density	

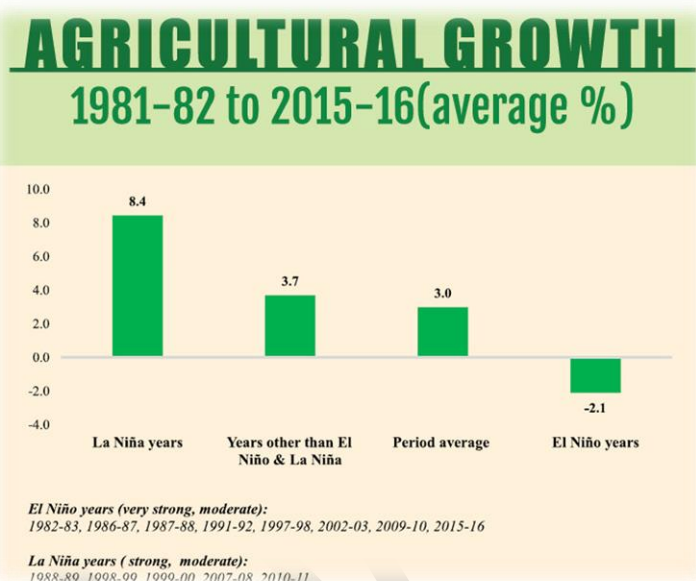


CHAPTER 4: AGRICULTURE: MORE FROM LESS

Post the success of Green Revolution, Indian agriculture has become cereal-centric, regionally-biased and input-intensive (land, water, and fertiliser). Also, rapidly changing trends in environment and consumption pattern requires a **new paradigm**: Increasing productivity by getting “more from less”.

Problems of Agriculture:

- **Low Productivity:** It is the central challenge.
 - ✓ Average **yields** of wheat and rice in India are much below that of China's – **46 per cent below in the case of rice and 39 per cent in the case of wheat.**
 - ✓ India's average yield in 2013 of **3075 kg/ha is lower than the world average of 3257 kg/ha.**
 - ✓ **Inter-regional variations** - Although both Punjab and Haryana have much higher yields of 4500 kg/ha, most other Indian states have yields lower than that of Bangladesh.
- **Cereal Centric:**
 - ✓ Future prices are guaranteed by the government through the MSP. But despite the government announces MSP for 23 crops, **effective MSP-linked procurement occurs mainly for wheat, rice and cotton.**
 - ✓ In Punjab and Haryana, almost all paddy and wheat farmers are aware of the MSP policy. However, **very few farmers who grow pulses are aware of an MSP for pulses.**
 - ✓ This has resulted in excess buffer stocks of paddy and wheat and it has also caused frequent price spikes in pulses and edible oils, despite substantial imports of these commodities.
- **Irrigation Methods:**
 - ✓ India uses **2 to 4 times** more water to produce a unit of major food crop than does China and Brazil.
 - ✓ Both the cases of irrigation, public (canal irrigation) and private (tube wells), the water has been deployed via extremely inefficient “**flood**” irrigation.
- **Low Farm Income:** According to NSS data, the average annual income of the median farmer net of production costs from cultivation is less than rupees 20,000 in 17 states. This includes produce that farmers did not sell (presumably used for self-consumption).
- **Lack of investment in Agricultural Research:**
 - ✓ Even in states where agriculture is relatively more important, agriculture education is especially weak if measured by the number of students enrolled in agricultural universities.
 - ✓ The agriculture universities have been plagued by: (i) Resource crunch, (ii) Difficulty in attracting talented faculty, (iii) Limited linkages and collaborations with international counterparts, (iv) Weakening of the **lab-to-land** connect (v) lack of innovation.
 - ✓ India's current spending on agriculture research is considerably below that of China and as a share of agriculture GDP even less than that of Bangladesh and Indonesia.
- **Market Segmentation:**
 - ✓ Market segmentation reduces overall welfare because it prevents gains through competition, efficient resource allocation, specialization in subsectors and fewer intermediaries.
 - ✓ Market segmentation results in large differences in producer and consumer prices.



Changing Trends:

- **Evolving Dietary Pattern:** Evolving dietary patterns are favoring greater protein consumption. Demand for high value products such as fruits, vegetables, livestock products are growing because of consumption diversification with rising incomes and urbanization.
- **Climate Change:**
 - ✓ Climate change is raising the scarcity value of water.
 - ✓ India has much lower levels of water per capita than Brazil. This constraint is exacerbated because, while Brazil and China use **approximately 60 per cent of their renewable fresh water resources** for agriculture, India uses a little over 90 per cent.
 - ✓ According to an analysis by National Aeronautics and Space Administration (NASA), India's water tables are declining at a rate of 0.3 meters per year.
- **Per Capita Land Availability:**
 - ✓ Industrialisation has put extra pressure on agricultural land.
 - ✓ There is a sharp decline in cultivable land per person in India - much sharper than in other countries such as China and Brazil.
 - ✓ In next twenty years, India's fast population growth will make it worse.

Need of new paradigms for Agriculture:

- **Prioritizing cultivation of less water-intensive crops:**
 - ✓ In order to facilitate this shift, the new irrigation technologies need to be accorded **"infrastructure lending" status** and both the centre and states need to increase public spending for micro irrigation methods such as drip irrigation, sprinkle irrigation methods.
 - ✓ An efficient drip irrigation system reduces consumption of fertiliser (through fertigation) and water lost to evaporation, and higher yields than traditional flood irrigation.
- **Favourable MSP regime:**
 - ✓ One way of **rationalizing MSP policy** is to make these **price signals reflect social** rather than **just private returns of production**.
 - ✓ **Taking account of the negative externalities** from using chemical fertiliser (soil depletion and health), water (falling water tables), and from burning crops (adverse health consequences).
 - ✓ Conversely, the **social returns** to pulse production is **higher** than the private returns, because it uses less water, fertilizer and fixes atmospheric nitrogen naturally. It also helps keep the soil porous and well aerated. These positive social benefits should be incorporated into MSP estimates.
 - ✓ Farmers could also be assured a floor price for their crops through a **"Price Deficiency Payment"** as proposed by NITI Ayog. Under this system if the price in an Agriculture Produce Market Committee (APMC) mandi fell below the MSP then the farmer would be entitled to a maximum of, say, 50 per cent of the difference between the MSP and the market price.
- **Re-invigorating agricultural research and education:**
 - ✓ Investment in public agricultural research in India needs to be augmented.
 - ✓ There is a strong need to take steps to enhance research productivity among the scientists in public agriculture research institutes by instituting performance indicators.
 - ✓ Private sector innovation and high yielding variety in seeds can result in productivity gains.
- **Encourage use of latest technology:**
 - ✓ Cellphones have been creatively used by countries like Ghana, Kenya, Nigeria and Thailand to provide information on prices and cultivation to farmers which has led to massive increases in farm incomes.
 - ✓ Opening up to **new GM technologies** and aggressively building their own research capacity (like China and Brazil)
 - ✓ Therefore, the regulatory process in India needs to evolve so as to address the concerns in a way that does not come in the way adapting high yielding technologies and rapidly moving towards the world's agro-technological frontier.

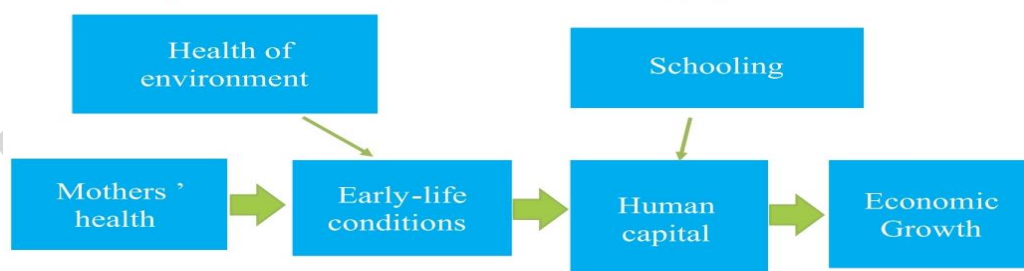
Why should the government spend on maternal and infant health?

- In order to maximize India's long-run economic growth, investing on relatively low-cost maternal and early-life health and nutrition programs offer very high returns on investment as
 - ✓ The most rapid period of physical and cognitive development occurs in the womb, so in utero and early-life health conditions significantly affect outcomes in adulthood.
 - ✓ The success of subsequent interventions- like schooling and training- are influenced by early-life development.
 - ✓ Despite recent progress, India generally under-performs on maternal and child health indicators.
 - ✓ A health, educated and skilled human capital is the determinant of country's growth. But tomorrow's worker is today's child or foetus and which needs to be taken care of.
- Evidence shows that countries with better maternal and infant health "at takeoff" grew faster over the subsequent 20 years.
- **Dynamic complementarities:** A healthy mother is more likely to give birth to a healthy baby who learns better and stays on in school longer as a result. Thus "skill begets skill" which help in human capital formation.

Relation of return to human capital investment with age of the child

- Studies show two things:
 - ✓ Returns to investment appear highest for programs that target young children and in-utero health.
 - ✓ Programs targeting younger children also appear relatively cheap in comparison to investments made in older children. E.g. Iodine supplementation is relatively cheaper compared to improving teacher quality.
- As such, on both the benefit and the cost side, **early-life investments represent a real opportunity for fiscal and capacity constrained governments.**
- This is particularly important because India is in the middle of her demographic dividend.

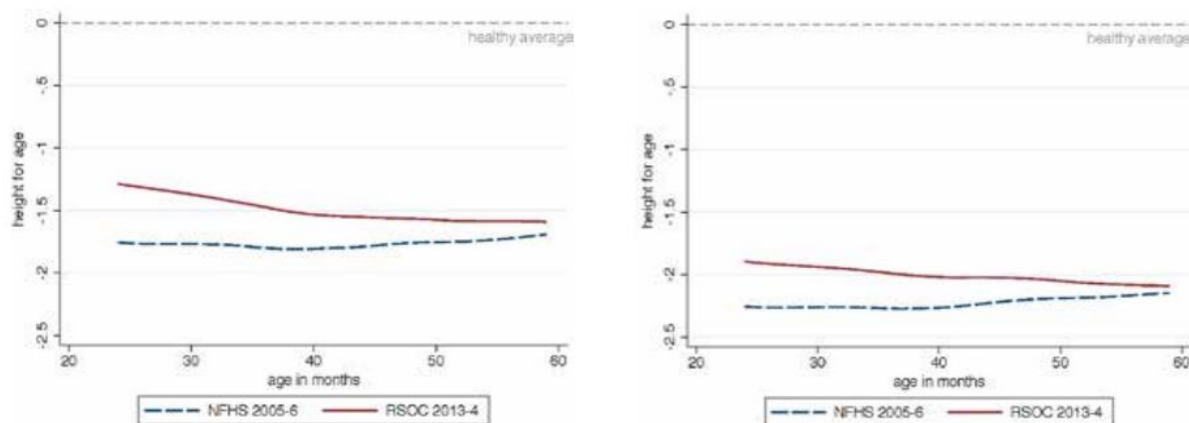
Human Capital Accumulation and the Demographic Dividend



The state of (child's) Play in India

- Height is a good proxy for earlylife conditions, and a predictor of later-life outcomes, because both height and cognitive development are partly determined by earlylife environment and net nutrition.
- Studies observed following three points regarding this
 - ✓ There has been improvement over time in both urban and rural India: children surveyed during the RSOC 2013- 14 round are on average taller than those surveyed during NFHS 2005-06.
 - ✓ There is a persistent rural-urban height gap which has not closed over the past decade.
 - ✓ Despite the progress made, India remains a negative outlier—our children are on average shorter than the healthy average.
- These indications of poor earlylife health have later-life human capital consequences.

Figure 5: Height-for-age in urban (left) and rural (right) India

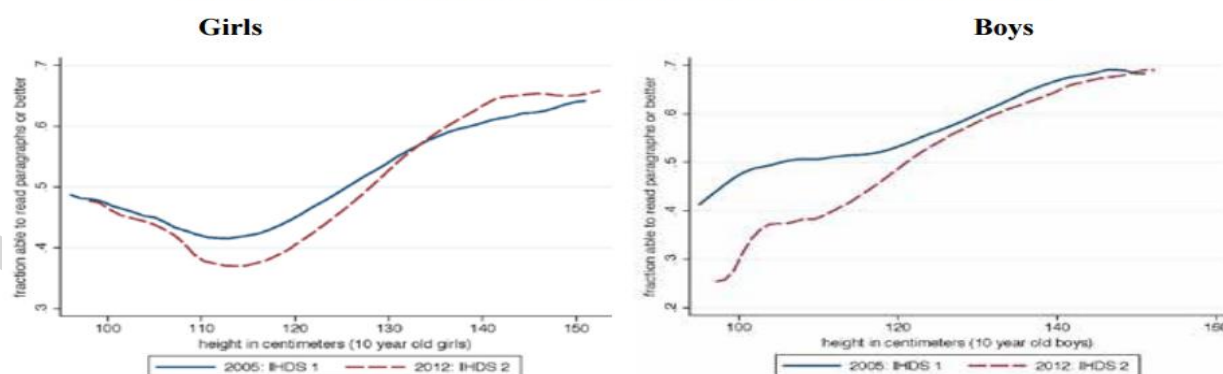


Source: National Family Health Survey (NFHS-3) and Rapid Survey of Children 2013-14.

State of maternal health:

- A child's first 1000 days on earth are thought to be a "critical period" of physical and cognitive development with long-run consequences which ultimately depends on his/her mother.
- Relative to its level of economic development, India has a high neonatal mortality rate. A leading cause of this is low birth weight.
- Neonatal mortality- the number of infants that die in the first 30 days of life- is an important indicator of in utero nutrition.
- Women who do not gain enough weight during pregnancy are far more likely to have low birth weight babies.
- Women in India gain only about 7 kilograms during pregnancy, which is substantially less than the 12.5-18 kg gain that the WHO recommends for underweight women
- Data suggests that 42.2 per cent of Indian women are underweight at the beginning of pregnancy.
- Apart from poverty, **social norms in India that accord low status to young women in joint households**, is responsible for this.

Figure 6: Height and cognitive development are positively correlated



Source: Indian Human Development Survey (IHDS) 2005 and 2012.

Improving maternal health

- National Food Security Act mandated a minimum cash entitlement of Rs 6,000 to pregnant women. But the **challenge remains getting this cash into the hands of pregnant women so that it can be successfully converted to nutrition and rest.**
- Thus, cash transfer must be paired with education on the importance of weight gain, the minimum gain required and ways to achieve it.

- The cash transfer should be given in a single, lump-sum payment early in pregnancy to avoid delays, reduce administrative costs, and ensure that it is possible for the household to spend the money on better food during pregnancy.
- Survey shows that conditional cash transfer with easy to monitor aspects such as attendance at village health, sanitation and nutrition days, and weight gain during pregnancy and child weight monitoring has helped.

Disease externalities: Open defecation

- Children must be protected from exposure to diseases in early life. Enteric infection due to open defecation poses the biggest problem in India.
- Open defecation spreads germs into environment leading to diseases like diarrhea which robs the child of his nutrition.
- India has the largest rural open defecation rate in South Asia. According to WHO and UNICEF estimates, 61 per cent of rural Indians defecate in the open in 2015, compared with only 32 per cent of rural people in sub-Saharan Africa.
- Survey says that the **problem is not only due to income constraints but also social reasons**. Rural Indian rejects the latrines promoted by WHO as they require regular pit emptying which is associated with untouchability also.
- Consequences of open defecation for Indian children may be worsened by high population density than simple international comparisons.

Addressing the open defecation

- The SDG requires ending open defecation by 2030. This would require India to triple up its rate of reducing open defecation.
- PM's Swachh Bharat Mission holds tremendous importance. In the last year alone, the government built over 80 lakh toilets.
- The success of these goals will naturally depend largely on the pace of reduction in open defecation in rural India, because this is where most people who defecate in the open live.

Behavioural change

- The biggest challenge here as in many instances is deeply entrenched social norms and facilitating behavioural change. Thus,
 - ✓ Behavioural challenges are now part of government programmes like NFSA, SBM, Janani Suraksha Yojana and ICDS. The increase in the percentage of women who exclusively breastfeed their child is an evidence of this.
 - ✓ The government has recognized the importance of influencing social norms in a wide variety of sectors. E.g. persuading the rich to give up subsidies they do not need, reducing social prejudices against girls. But more work is needed on this.

CHAPTER 6: BOUNTIES FOR THE WELL-OFF

- The government spends nearly 4.2 per cent of GDP subsidising various commodities and services.
- **While this is important for the economic lives of the poor, most of it is being utilized by the well-off.**
The Survey analyses this in seven areas:
 - ✓ Kerosene (Rs. 5,501 crore)
 - ✓ Railways (Rs. 3,670 crore)
 - ✓ Electricity (Rs. 37,170 crore)
 - ✓ LPG (Rs. 40,151 crore)
 - ✓ Gold, (Rs. 4,093 crore)
 - ✓ Aviation turbine fuel (Rs. 762 crore)
 - ✓ Small Savings (Rs. 11,900 crore)
- Thus the subsidy given to the well-off amounts to more than Rs. 1 lakh crore (including the tax foregone and PPF schemes).
- The Survey defines 'poor' as those whose consumption falls in the bottom 30% of the population. Rest all are termed as 'better-off'.

SMALL SAVINGS:

- They were introduced to mobilize savings by small earners and offered above market deposit rates in accessible locations like post offices for this purpose. However, the higher and fixed rates distort the monetary policy transmission as Banks find it difficult to cut their own lending rates.
- The schemes range from really small schemes like postal deposits and medium ones like Public Provident Fund (PPF) to 'not-small-at-all' ones like Tax free Bonds.
- Three kinds of tax exemptions are given to them- on the deposit, on interest accrued and on the principle at the time of withdrawal.
- Survey says that the maximum exemptions are given to medium schemes like PPF and Tax free bonds. The returns on these are much high as compared to those on post office savings or long term G-Sec.
- Thus, the Survey finds that any tax incentives that are given, for example, for savings, benefit not the middle class or the upper middle class, but the super- rich who represent the top 1-2 percent of the Indian income distribution.

TAX TREATMENT OF SAVINGS

- Income tax is inherently biased against savings; it leads to double taxation in so far both the savings and the earnings are taxed. Thus, there are several tax incentives in the form of concessions in order to facilitate savings.
- However, there are certain problems with the tax incentives structure for savings in India:
 - ✓ The structure does not encourage net savings (contribution plus accumulation minus withdrawals) since withdrawals are also exempt from tax.
 - ✓ Further, they distort interest structure and choice of savings instruments, in turn affecting investments.
 - ✓ They are also regressive in as much as they provide relatively higher tax benefits to investors in the higher tax bracket
- Overall, tax incentives for savings as designed in India are economically inefficient, inequitable and do not serve the intended purpose. This needs to be reviewed.
- **The suggestion is either to tax it at only at the deposition stage or at the withdrawal stage. Survey supports the latter for following reasons:**
 - ✓ Taxation at the point of contribution would create hardship and thus disincentive to save. However, ability to pay is greater at the time of withdrawal and thus taxation at that point is justified.
 - ✓ Under this method, full deduction from income at the point of contribution and accumulation acts as an incentive for savings while taxation at the point of withdrawal penalizes dissavings.

The combined effect is that it encourages the saver to build a self-financing old age social security system.

- ✓ Further, this system would provide clarity and discretion to the saver. It is also simpler in terms of compliance and administration.
- ✓ Finally, this is being practiced in most developing and developed countries.
- The Survey thus suggests moving slowly towards the withdrawal method of taxation of savings.

OTHER BOUNTIES

- **GOLD:** Even though gold is consumed mostly by the rich, it is taxed only at 1-1.6% (Both center and states combined) compared with tax of 26% on normal goods. About 98% of this subsidy accrues to the 'better-off'.
- **RAILWAYS:** Subsidy amounts to 34% for the better-off and 69% for the poor.
- **LPG:** Only 9% of the subsidy goes to the poor. So the subsidy aimed at benefitting the poor is hardly being used by them.
- **ELECTRICITY:** The rates charged to the better-off are subsidized to the extent of 32 per cent, and the poor, 49 per cent (average for Delhi and Tamil Nadu). But given the magnitude of relative power consumption of the better-off in the total consumption of electricity (84 per cent), the better-off appropriate a substantial amount of the total subsidy.
- **AVIATION FUEL:** ATF is taxed at about 20% while diesel and petrol are taxed at 55% and 61% respectively. The consumers of this subsidy are all well-off.
- **KEROSENE:** About 50% of the subsidy is consumed by the well-off.

WAY AHEAD

- In an ideal system of incentives that gives greater weight to the welfare of the poor, taxes should be greater and subsidies lower for richer households. Further, the subsidies must reach only the targeted beneficiaries.
- The principles of equity and effectiveness must be used to assess the subsidy policy.
 - ✓ Goods that account for a large share of expenditures of poorer households, such as food, should be taxed at low rates or even subsidized.
 - ✓ Conversely, from an equity perspective, if a large share of expenditure on a good is by the better-off, then the good should be taxed at higher rates.
- Rectifying these gross anomalies is important not only from a fiscal and welfare perspective, but also from a political economy welfare perspective, lending credibility to other market-oriented reforms.

CHAPTER 7: FISCAL CAPACITY

Fiscal capacity—spending and especially taxation—is key to long run economic development. Taxation is not just about financing spending, it is the economic glue that binds citizens to the state in a two-way accountability relationship.

Why taxation is key to long run political and economic development:

- Taxation and military service (or some other form of compulsory national service) are two core elements of modern citizenship.
- If spending is about the *entitlements* of citizenship in a democracy, taxation is about the *obligations* of citizenship.
- India has chosen taxation as the key obligation that it can demand of its citizens. Thus Bringing more and more people into the tax net via some form of direct taxation, will help in realizing the promise of Indian democracy.

Fiscal Capacity of India

- India taxes and spends less than OECD countries and less than its emerging market peers. Tax to GDP ratio of India is low 16.6%.
- India's total spending to GDP ratio (26.6%) and human capital expenditure (health and education) to GDP ratio (5.1%) is lowest among the BRICS.
- India has made limited progress in increasing its tax and spending capacity.
- When compared with economies having similar level of economic development, the tax and spending ratios compared with respect to PPP adjusted GDP, Indian taxation and spending matches with the peers.
- But when compared with countries having similar level of economic development and having similar democracy index value, India heavily underperforms in tax collection and spending
- Western democracies have had a much longer period of political evolution allowing them to build state capacity where as India has had only 7 decades to develop fiscal capacity. This is one of the reasons for low fiscal capacity of India.
- Roughly 5.5 percent of earning individuals pay taxes in India. India currently has amongst the lowest number of taxpayers (as a ratio of voting age population).

How to improve Taxation and Spending

- The government's spending priorities must include essential services that all citizens consume: public infrastructure, law and order, less pollution and congestion etc
- Reduce corruption - more citizens believe that public resources are not wasted, the greater their willingness to pay taxes
- Better targeting of the subsidies so that well off people donot enjoy the subsidies.
- Property taxation system needs to be overhauled. Property taxes are especially desirable because they are progressive, buoyant, and difficult to evade. They can be the foundation of local government's finances.
- Rationalization of tax exemptions to increase direct tax base.
- Introduction of GST to solve the problem of cascading of taxes and to improve tax collection efficiency.
- Phasing out of corporate tax exemptions coupled with a lower corporate tax rate (25%). This will simplify tax structure, prevent litigation and will boost ease of doing business.
- Implementing the recommendation of Tax Administration Reforms Commission.

CHAPTER 8: PREFERENTIAL TRADE AGREEMENTS

- After formation of WTO in 1994, Preferential Trade Agreements (PTAs) have been proliferating. All WTO members except Mongolia have concluded at least one PTA. Since the mid-2000s, India's FTAs have doubled to about 42 today.
- Five different forms of PTAs are –
 - ✓ Partial Scope Agreement (PSA): A PSA is only partial in scope, meaning it allows for trade between countries on a small number of goods
 - ✓ Free Trade Agreement (FTA): preferential arrangement in which members reduce tariffs on trade among them, while each having own tariff rates for trade with nonmembers.
 - ✓ Customs Union (CU): A customs union (CU) is a free-trade agreement in which members apply a common external tariff (CET) schedule to imports from nonmembers.
 - ✓ Common Market (CM): A common market is a customs union where movement of factors of production is relatively free amongst member countries.
 - ✓ Economic Union (EU): An economic union is a common market where member countries coordinate macro-economic and exchange rate policies.

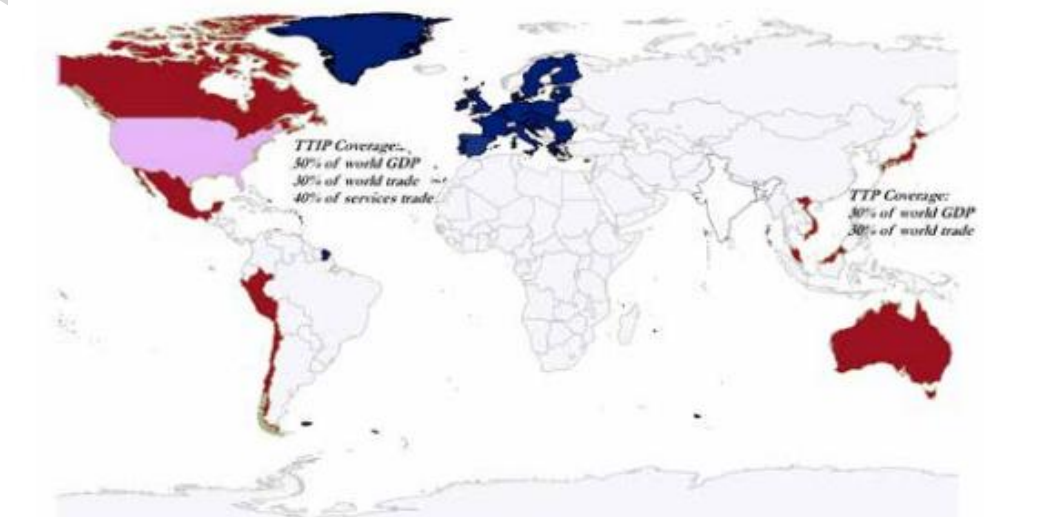
India and FTAs

- India has made use of FTAs as a key component of its trade and foreign policy, especially from 2003-04 onwards.
- Specific Focus of India's FTAs - India has mainly focused on partnering with other Asian countries, and in goods more so than in services.
- Customized FTAs - There are differences in coverage of products and degree of integration across recent FTAs. For example, India-Korea CEPA contains chapters on Origin Procedures, telecommunication and Audio-Visual Co-production, but these are not included in India-Japan CEPA.

Dilemma of Mega Regional FTAs

- Recently, PTAs are being transformed into mega regional agreements like TPP, and TTIP.
- These mega regional agreements will impact both global and Indian economy in significant ways. For ex, according to World Bank impact of TPP would be –
 - ✓ Will increase the member country GDP by 1.1% on a GDP-weighted average basis
 - ✓ Vietnam and Malaysia will benefit most among the member countries of TPP while non-members like Korea and Thailand would suffer as a result of shrinking market access and greater competition in export markets
 - ✓ For India effect on export will be marginally positive but India's GDP will reduce by 0.2%
 - ✓ A Decrease of 0.1% in real income for India by 2020.

Figure 3: Coverage of US (pink)-TPP (red) and US(pink)-TIPP (blue) around the world



Review of India's FTAs

Suitability of FTAs under India's trade policy could be understood through cost benefit analysis of the existing FTAs

Benefits of FTAs

- Reduction in tariff barriers should spur trade between partners, by offering greater market access for firms
- Increased import and export after signing of FTA with the member countries.
- FTA leads to specialized development of industrial subsectors like metals and textiles in case of ASEAN FTA.

Negatives of FTAs

- The impact of an FTA on the trade balance is unclear
- Possibility of trade diversion from non-member country to a member country - Without any real increase in import and export.

Basic Facts and Trends

For the purpose of this analysis, survey focused on three major FTA partners: ASEAN, Korea and Japan. The main results are

- Increased Trade
- Persistent Effects: within a year of the agreement coming into force, the effect of FTAs become positive and significant, with effects even increasing in the subsequent few years.
 - ✓ Especially for ASEAN FTA: ASEAN and the Korean FTA show statistically significant and positive effects on trade values.
 - ✓ Especially for Imports: the country has benefitted on both sides of trade flows with a statistically significant 33 per cent increase in exports and 79 per cent increase in imports.
 - ✓ Especially for Metals and Textiles

Way forward

- Multilateral trade liberalization remains, in an ideal world, the best way forward. But the WTO process seems to have been overtaken by preferential trade agreements.
- Hence, India should approach FTAs as they have led to increased trade.
- But India should keep its options intact to use WTO consistent measures like anti-dumping and conventional duties and safeguard measures to prevent itself from unfair trade.
- Analytical and other preparatory work should be focused to prepare India for a mega-regional world.

CHAPTER 9: REFORMING FERTILIZER SECTOR

In spite of the recent reforms by the Government, fertilizer subsidy amounted to Rs. 73,000 crore in 2015-16. Distortions due to multiple regulations, feed upon each other, and together create an environment that leads to a series of adverse outcomes.

Early reforms since 2014

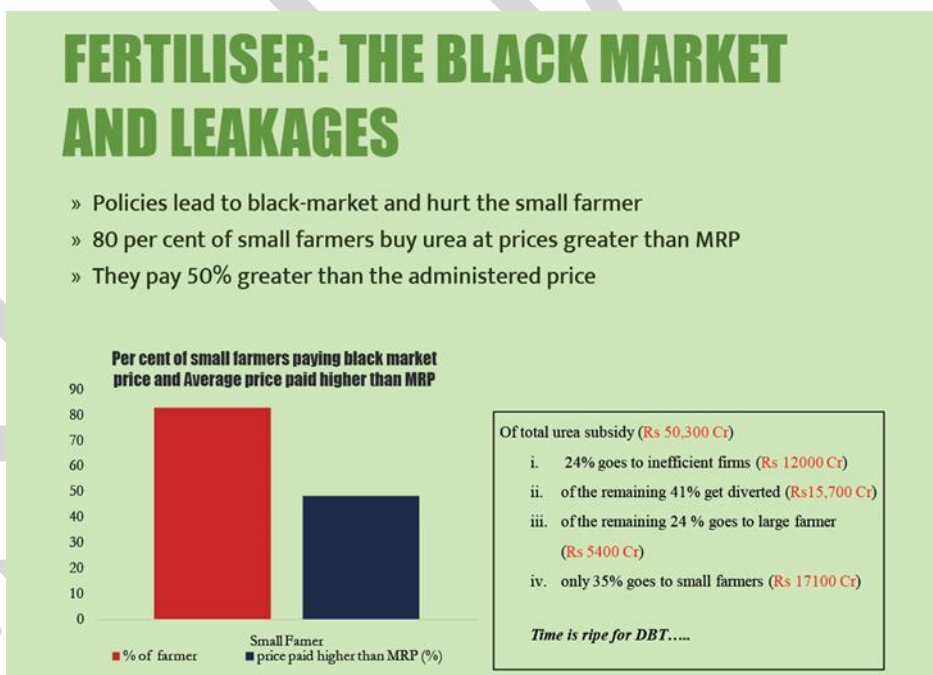
- Neem Coated Urea to check diversion of urea from agriculture uses. It also reduces leaching of nitrogen into soil.
- Gas price pooling: Under this, price of domestic natural gas is averaged or pooled with cost of imported LNG to create a uniform rate for fertilizer plants.

Major distortions in fertilizer sector

- Subsidies to the tune of 0.7% of GDP, next only to food, especially for Urea.
- Under Pricing Urea vis-à-vis other fertilizer especially P & K, encouraging over use. Unlike Di Ammonium Phosphate (DAP) & Murate of Potash (MOP) which is subsidized based on nutrient content, Urea is subsidized based on cost of production.
- Restriction on production, import, & selling of fertilizers.
 - ✓ Only 3 import agencies are allowed to import Urea
 - ✓ Government tells agencies how much to import and where to sell.

Leakages in fertilizer sector

- Only agriculture usable Urea is subsidized which leads to illegal diversion of subsidized Urea for industrial uses.
- Restricted import or canalization leads to shortage when fertilizer demands are misestimated. This leads to black marketing.
- Subsidies benefit large farmers & producers the most while small farmers have to pay a heavy price for black marketed Urea
- A govt. subsidy based on cost of production promotes inefficient firms and also disincentivizes efficient ones leading to more import.



Externalities of under-priced Urea

- Urea overuse leads to soil degradation
- Nitrogen being more subsidized is overused compared to P & K fertilizers. This leads to ground water pollution and associated health impacts.

Reforms

- **Decanalizing urea imports:** Allowing more agencies to import urea and giving them more freedom in procurement decision would allow flexibility in adjusting to demand.
- Bringing **urea under nutrient based subsidy** compared to current practice of cost based subsidy. This would incentive firms to reduce cost and become more efficient.

- Using **JAM trinity** to check leakages and improve targeting
- Opting for Universal subsidy with cap on number of bags of Urea. This would benefit small farmers and also reduce subsidy bill

Conclusion & Way forward

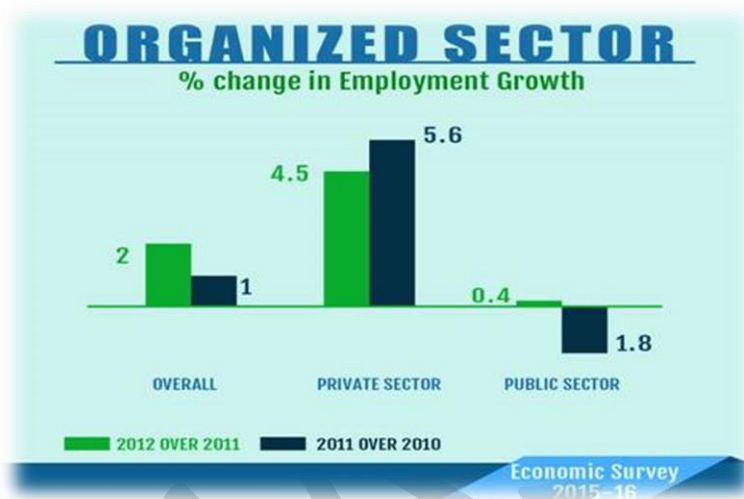
- Reforms of fertilizer sector would not only help farmers & improve efficiency in the sector but also show that India is prepared to overcome exit barriers.
- Rationalizing subsidies would also enable the govt. to spend on more productive areas like drip irrigation, PM Gram Sadak Yojna etc.
- Finally, India should look to secure long term supplies from locations where energy prices are cheap. For eg. from Iran and Oman.

REFORMING THE FERTILISER SECTOR

- » The fertiliser sector has seen significant recent reforms. These include neem-coating urea which has likely reduced diversion to industrial uses, and gas-pooling to induce efficiency in production.
- » Fertiliser accounts for large fiscal subsidies after food—about Rs 73,000 crore or 0.5 percent of GDP. Nearly 70 per cent of this amount (about Rs 50,300 crore) was allocated to urea, the most commonly used fertiliser.
- » We estimate that only 17,500 crores of the urea subsidy—about 35 per cent—reaches small farmers. Fertiliser subsidies suffer from 3 types of leakages—(i) leakages to the black market, (ii) leakages to inefficient fertiliser manufacturers and (iii) leakages that prevent small farmers from deriving full benefits from the subsidy.
- » 51 per cent of farmers were forced to buy urea in the black market at prices above the Maximum Retail Price, according to the 2012-13 Cost of Cultivation Survey. Moreover, small farmers more likely to have to buy urea in black market than large farmers. Urea leakages to the black market are driven by a violation of the One Product One Price principle. This principle says that products which are essentially the same should be charged essentially the same price. Otherwise, there will be incentives to divert the subsidised commodity from eligible to ineligible consumers. The 75 per cent subsidy on agricultural urea creates a strong incentive to divert urea to industry diverting urea to industry and possibly across the border to Bangladesh and Nepal.
- » Controlled imports are another feature of the fertiliser sector. Currently only 3 firms are allowed to import urea

Introduction

- India is **midway through its demographic dividend**. To exploit this dividend and meet the growing aspirations of those entering the labour force, India's economy needs to create enough "good jobs" – jobs that are safe and pay well, and encourage firms and workers to improve skills and productivity.
- Though, the informal sector should be credited with creating jobs and keeping unemployment low. Yet, by most measures informal sector jobs are much worse than formal sector ones.
- Thus the challenge of creating "good jobs" in India could be seen as the challenge of creating more formal sector jobs, which also guarantees worker protection.



Challenge of creating "good jobs"

- **Increasing use of Contract Labour**
 - ✓ Informal firms account for most employment growth. **Of the 10.5 million new manufacturing jobs created between 1989 and 2010, only 3.7 million (about 35 per cent) were in the formal sector.**
 - ✓ The slow pace of labour reform has encouraged firms to resort to other strategies such as hiring of contract workers.
 - ✓ Contract workers in India have increased from 12 per cent of all registered manufacturing workers in 1999 to over 25 per cent in 2010.
 - ✓ Contract labour hiring has several disadvantages
 - Hiring workers through a contractor can be more expensive
 - Contract workers do not feel as much loyalty to the company as regular workers,
 - It also reduces the employers' incentive to invest in their training.
 - It hurts a firm's future productivity as contract workers do not accumulate "firm-specific human capital"
- **Competitive Federalism:**
 - ✓ With private investment lagging, states are under pressure to be seen as attractive destinations for investments that will create jobs and boost economic growth.
 - ✓ There may be a possibility of **competitive federalism becoming "too competitive"**, inducing a race to the bottom with states pushed into giving too many concessions. But at present, India seems far from such a situation.
- **Relocation of Labour Intensive Manufacturing:**
 - ✓ Apparel industry's input costs include 30 per cent from wages and only 2-3 per cent are capital intensive inputs like power. Despite this, India is ceding market share to countries like Bangladesh and Vietnam.
 - ✓ To improve productivity, **reallocating capital from less-productive to more-productive firms** should be encouraged.
 - ✓ Relocation model - a **new business model of relocating apparel industry to second and third-tier towns**. This model of moving factories to workers **has a number of commercial and social advantages:**
 - It involves spreading economic development to underdeveloped areas, reduces spatial mismatch in the labour market and can improve competitiveness by raising firms' access to lower cost labour.

- Since apparel industry employs many female workers, **hence locating in rural areas can help address the low rates of female labour force participation** that prevent India from achieving its full economic potential.

Role of Union Government

- Center should ensure that labour regulation is **worker-centric**. It should expand workers' choice and reducing mandatory taxes on formal sector employment.

The Example of EPF

- Mandated worker benefits like EPF are actually mandatory taxes that reduce choice. Problems with EPF are -
 - ✓ High administrative cost for the maintenance of EPF account which amounts to 3.54 per cent of service charges (.85 percent of worker's salary) which is higher than the rates of most private mutual funds.
 - ✓ Tax status - EPF contributions have an EEE status—Exempt, Exempt, Exempt— meaning that contributions, interest earned and withdrawals are all exempt from tax. But, it is useless to the workers who are mandated to contribute, because even the richest such workers—who earn Rs 15,000 a month—would be below the income tax threshold.
 - ✓ High transaction costs - To reduce, measures such as allowing electronic transfers of money between accounts and creating universal account numbers for all employees have been undertaken already
- Government should consider offering the choice in employee's contribution to the EPF to lower earners as it is offered to rich earners. This would introduce competition in the market for savings, which may improve EPFO's service standards, and allow the poor to optimize as per their own personal requirements.

Introduction

- Since 2014, sweeping changes have characterized the power sector, including: record addition to generation capacity and the comprehensive initiative–Ujwal DISCOM Assurance Yojana (UDAY)–to improve the health and performance of the distribution companies.
- These changes provide the basis for discussing issues of longer-term interest for the states and their power regulators.

Following developments have taken place in the power sector since 2014:

- Highest ever increase in power generation capacity leading to lowest ever peak electricity deficit of 2.4%
- Indian railways is attempting to shift to open access for power generation, by migrating from existing arrangements with state utilities and NTPC.
- Centre and state govt. have come up with UDAY (Ujjwal Discom Assurance Yojna) to take off debts from DISCOMS.
- Renewable energy target have been up scaled to 175 GW

Box 11.2: Salient features of policy action on distribution front

A. Ujwal DISCOM Assurance Yojana (UDAY)

1. States shall take over 75 per cent of discom debt outstanding as of September 2015.
2. Reduction of Aggregate Technical & Commercial (AT&C) losses to 15 per cent by 2018-19.
3. Reduction in difference between average cost of supply and average revenue realized (ARR) by 2018-19.
4. Increased supply of domestic coal to substitute for imported coal.
5. States shall take over future losses of discoms in a phased manner.
6. Banks/FIs not to advance short term debt to discoms for financing losses.

B. Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY)

1. Electrification of all villages.
2. Metering of unmetered connections for reducing losses.
3. Separation of feeders to ensure sufficient electricity to agriculture and continuous supply to other categories.
4. Improvement of sub-transmission and distribution network to improve the quality and reliability of supply.

C. Integrated Power Development Scheme (IPDS)

1. Strengthening of sub-transmission and distribution network in urban areas.
2. Metering of distribution transformers /feeders / consumers in urban areas.
3. IT enablement of distribution sector and strengthening of distribution network.

D. Domestic Efficient Lighting Program (DELP)

1. 77 crore LED bulbs to replace household and street light incandescent bulbs.

E. National Tariff Policy, 2016

1. Cross subsidy surcharge formula revised.
2. Regulator will devise power supply trajectory to ensure 24X7 power supply for all consumers latest by 2021-22 or earlier.

Complexities in the power sector:

- Complexities in power tariff schedules prevent various users to respond to tariff changes.
- Average tariff in some cases are less than cost of supplying electricity.
- High industrial tariff & varying quality.
- Barriers to one-nationwide electricity prices through open access.
- Determination of progressive tariff for domestic consumers.

Policies in the Power Sector: Impact on 'Make in India'

- High tariffs and erratic supply for industry have led to a slow but steady decline in the growth of industrial electricity purchases from utilities and a gradual transition towards captive generation.
- To protect against uneven power supply, about 47 percent of firms report using a diesel generator.

Open Access (OA) policy & One India market

Status of open access policy:

- The Open Access (OA) policy introduced under Electricity Act 2003, allows consumers with electricity load above 1 MW to procure electricity directly from electricity markets.
- Thus OA provides an aggregation of the country-wide supply and demand on the same platform.
- Power Exchanges to trade electricity were set up to create a national electricity market.
- Some states have imposed cross-subsidy surcharge & additional levies for purchasing electricity from power exchanges.

Case for progressive tariffs

- This means higher tariffs for rich that in turn will subsidize tariffs for poor.
- Because of relatively inelastic price elasticity, rich will continue to use power despite higher tariffs. Thus charges for the poor can be reduced while generating higher revenues.

Conclusion

- If India becomes 'one market' in power, the burden on industry can be relieved, allowing it to become internationally competitive as envisaged in 'Make in India'; tariffs can be made simple and transparent, avoiding proliferating end-use charges; and by taking advantage of the possibility of greater progressivity in rate-setting, charges for the poor could be reduced
- State govt. and state regulators have a key role to play, with the centre in facilitating role, paving way for cooperative-competitive federalism.

CHAPTER 2: PUBLIC FINANCE

Major Steps with respect to Indirect Taxes

- Reduction in duty on certain inputs to address the problem of duty inversion
- Improving the quality of life and public health through Swachh Bharat initiatives - Increase in the clean energy cess levied on coal, lignite and peat from Rs. 100 per tonne to Rs.200 per tonne
- Education cess and secondary & higher education cess on taxable services were subsumed in Service tax
- Penalty provisions in service tax were rationalized to encourage compliance and early dispute resolution.

Major Steps with respect to Direct Taxes

- The levy of wealth tax was abolished and replaced it with an additional surcharge of 2% on the super-rich with a taxable income of over Rs 1 crore.
- Black Money (Undisclosed Foreign Income and Assets) and Imposition of Tax Act 2015, enacted.

Receipts

Central government receipts can broadly be divided into –

- Non-debt receipts – This includes tax revenue, non-tax revenue, recovery of loans and disinvestment receipts
- Debt receipts – This includes market borrowings and other liabilities, which the government is obliged to repay in the future.

Tax Expenditure

- Tax Expenditure - The divergence between the statutory tax rate and effective tax rate (defined as the ratio of total tax revenue collected to the aggregate tax base) is mainly due to tax exemptions.
- Tax expenditure should be interpreted as targeted incentives (in the form of tax exceptions) for the promotion of certain sectors
- High tax expenditure can make the tax system unduly complex.
- Tax expenditures have been brought down significantly as a result of simplification of the tax system and improvements in tax administration in recent years

Non-Tax Revenue

1. Non-tax revenue mainly consists of
 - ✓ Interest and dividend receipts,
 - ✓ External grants and receipts from services provided by central government like currency and mint, Union Public Service Commission, police, education, health, irrigation, transport.
2. In 2015-16 budget, it was 1.6 per cent of GDP and constituted 18 per cent of non-debt receipts.

Non-Debt Capital Receipts

- Non-debt capital receipts consist of recovery of loans and advances, and disinvestment receipts.
- The share of recovery of loans has been declining because of 12th FC's recommendation against loan intermediation from centre to states, and allowing states to directly borrow from the market.

Trends in Expenditure

- Rationalization and reprioritization of public expenditure is integral to fiscal consolidation
- Improving the quality of expenditure becomes central to achieving sustained fiscal consolidation.
- Quality Expenditure - Underlining the need for greater public investment to aid growth revival, Budget 2015-16 ensured a higher share for capital expenditure from the total pool of expenditure
- Expected growth in capital expenditure was 25.5 per cent and growth in revenue expenditure was 3.2 per cent over revised estimates of 2014-15.

- Budget 2015-16 sought to achieve the proposed expansion of capital expenditure on railways, roads and others without compromising defence capital expenditure.

Plan Expenditure

- Centrally Sponsored Schemes (CSS) funds are released as central assistance to state plans and also routed through the states' budgets.
- This provides greater autonomy, authority and responsibility to the states in implementation of schemes.
- The 14th Finance Commission had recommended increasing the states' share in the divisible pool of taxes from 32 to 42 per cent, and counterbalancing this increase in devolution by curtailing the resources transferred under central plan.
- This led to a decline in central assistance to states and in the share of plan expenditure in 15-16.
- However, there has been an increase in overall resource transfer to states

Non-Plan Expenditure

- Non-plan expenditure constituted 73.8% of the total expenditure in budget estimates of 2015-16, which is 3 percentage points higher than the average of the last five years.
- Out of total non-plan expenditure, revenue expenditure accounted for around 92 per cent; the remaining 8 per cent was mainly defence capital expenditure.
- One of the major constraints in the rationalization of non-plan expenditure is committed expenditure (roughly 41.5% of non-plan expenditure)
- Committed expenditure includes interest liability on debt incurred in the past and pension payment to retiring workforce from government services.

Trend in Deficit and Financing of Deficit

- Fiscal deficit target for 2015-16 was 3.9% against 4.1% in 2014-15.
- Financing of fiscal deficit in India is mostly from domestic sources (98% is from domestic sources)
- Approximately 84 per cent of domestic financing is from market borrowings

Government Debt

- The total outstanding liabilities of the central government were Rs. 62.78 lakh crore at end-March 2015, accounting for 49.6 per cent of GDP
- This comprises 39.2 per cent public debt (internal debt plus external debt) and 10.3 per cent other liabilities (small savings, provident funds, etc.)
- Risk with external debt – It can change purely due to currency fluctuations. However, it is small fraction of total liabilities (roughly 1.5% of GDP) of the centre and is a declining proportion of GDP

Fiscal Performance of the General Government (Centre Plus States)

- The general government (centre plus states) has been on the path of fiscal consolidation and fiscal discipline, as reflected by the decreasing debt as percent of GDP (roughly 67%)
- The fiscal deficit of general government is further expected to decline from 6.9 per cent of GDP in 2014-15 (RE) to 6.3 per cent of GDP in 2015-16 (BE)
- Both the centre and the states have stuck to the plan of ensuring quality of expenditure and boosting public investment.

Monetary Policy Developments in 2015-16

- Agreement on monetary policy signed between RBI and Government. According to the agreement RBI will target to bring headline inflation within 4% +(-) 2% band by Jan 2016.
- To boost liquidity RBI reduced repo in a series of steps and was 6.75% in September 2015.
- The RBI reduced the statutory liquidity ratio by 0.50 per cent to 21.50 per cent.

Bank Credit

- Bank credit has slowed to roughly 10% from an average of 20% in the period 2003-08.
- The sluggish growth can be attributed to several factors:
 - ✓ Incomplete transmission of the monetary policy as banks have not passed on the entire benefit to borrowers.
 - ✓ Unwillingness of banks to lend credit on account of rising non-performing assets (NPA).
 - ✓ Worsening of corporate balance sheets, forcing them to put their investment decisions on hold.
 - ✓ More attractive interest rates for borrowers in the bond market.
- Share of industry in non-food bank credit has come down significantly from 53 per cent in 2011 to just 25 per cent in 2015. The decline reflects the -
 - ✓ Muted market sentiments leading to slowdown in private investment demand and industrial growth,
 - ✓ Poor earnings growth of the corporate sector, and
 - ✓ Risk aversion on the part of banks in the background of rising gross NPAs.
- Share of personal loans in non-food bank credit has risen to 34.2% in 2015 (15.3% in 2011). Thus consumption expenditure is the main driver of economy during the financial year
- RBI has decreased repo rate by 125 bps since Jan 2015-Dec 2015, but banks hardly passed 70-80 bps to the customer.
- RBI in its Financial Stability Report outlined below reasons for poor pass through –
 - ✓ mobilization of deposits at fixed rates with only about 20 per cent of term deposits getting re-priced during a year;
 - ✓ competition from small savings schemes where the interest rates are revised with considerable lags;
 - ✓ savings deposit rates of public sector banks remaining unchanged at 4 per cent despite deregulation in October 2011;
 - ✓ Base rate of banks being mostly determined on the basis of average cost rather than marginal cost.

Performance of Scheduled Commercial Banks (SCBs)

- The performance of SCBs during 2015-16 remained subdued.
- The moderation in the growth of assets of SCBs can mainly be attributed to tepid growth (below 10 per cent) in loans and advances.

SCB Performance – Capital Adequacy

- During 2014-15, the capital to risk weighted assets ratio (CRAR) of SCBs is 12.7% (above the stipulated minimum of 9.0 per cent)
- Given the deterioration in asset quality and gradual implementation of Basel III, banks will have to improve their capital positions to meet unforeseen losses in future.
- The estimated capital requirement (excluding internal generated profit) for the next four years up to FY 2018-19 is likely to be about R1,80,000 crore.
- Of this total requirement, the Government of India proposes to make Rs 70,000 crore available out of budgetary allocations during the current and succeeding years.

SCB Performance – Non Performing Assets (NPAs)

- Gross nonperforming advances (GNPA) of SCBs as a proportion of gross advances increased to 5.1 per cent from 4.6 per cent between March and September 2015.
- Stressed advances to total gross advances ratio increased to 11.3 per cent from 11.1 per cent.
- Five sub-sectors contributed 53% of total stressed advances (while they borrowed 24.2% of total advances of SCBs) - mining, iron and steel, textiles, infrastructure and aviation

Financial Inclusion

- The number of new basic savings bank deposit accounts (BSBDAs) rose considerably during the year on account of the government's initiative under the Pradhan Mantri Jan Dhan Yojana (PMJDY).
- BSBDAs reached 441 million for the period ended September 2015 as against 398 million for the year ended March 2015.
- The total number of banking outlets went up from 553,713 as at end-March 2015 to 567,530 (517,328 branchless modes and 50,202 branches) as at end-September 2015.

Financial Inclusion – PM Mudra Yojana

- Pradhan Mantri Mudra Yojana (PMMY) has been launched for the setting up of a Micro Units Development Refinance Agency (MUDRA) to refinance last mile financiers.
- MUDRA seeks to offer refinance products having a loan requirement up to Rs 10 lakh and support to micro finance institutions (MFI) by way of refinance.
- The products designed under the PMMY are categorized into three buckets of finance based on the stage of growth/development of the micro business units -
 - a. Shishu (loan up to R50,000) - about 60 per cent of the allocation to Shishu.
 - b. Kishor (R50,000 to R5 lakh)
 - c. Tarun (R5 lakh to R10 lakh)
- The PMMY aims to provide formal bank credit to the more than 5.7 crore existing informal sector micro enterprises and many more aspiring micro entrepreneurs in the country.

Gold Investment Schemes - Sovereign Gold Bonds

- Main objectives of the scheme are to reduce the demand for physical gold (reduce CAD) and shift a part of the gold imported every year for investment purposes into financial savings.
- Issued by RBI on behalf of the Government of India in rupees
- Denominated in grams of gold
- Restricted for sale to the resident Indian entities only both in demat and paper form.
- Redemption is made in the rupee value equivalent to the price of gold at the time of maturity.
- Exemption from capital gains tax is also available.

Gold Investment Schemes – Gold Monetisation Scheme:

- Bureau of Indian Standards (BIS) certified Collection, Purity Testing Centres (CPTC) collect the gold from the customer on behalf of the banks
- The minimum quantity of gold (bullion or jewellery) which can be deposited is 30 grams and there is no limit for maximum deposit.
- Gold Saving Account can be opened with any of the designated bank and denomination in grams of gold for short-term period (1-3 years), a medium-term period (5-7 years) and a long-term period (12-15 yr)
- The CPTCs transfer the gold to the refiners.
- The banks will have a tripartite / Bipartite Legal Agreement with refiners and CPTCs.
- Redemption is made in cash/gold for short term and in cash for medium and long term deposits.

Reforms in Financial Sectors

- The Forwards Markets Commission (FMC) has been merged with the Securities and Exchange Board of India (SEBI). This is done to achieve
 - ✓ Convergence of the regulation of the securities and commodity derivatives markets and
 - ✓ Increase the economies of scope and scale for exchanges, financial firms and other stakeholders.

- Insolvency and Bankruptcy Code 2015 has been introduced in the Parliament. The bill seeks to -
 - ✓ Consolidate and amend the laws relating to reorganization and insolvency resolution of corporate persons, partnership firms and individuals in a time-bound manner,
 - ✓ To promote entrepreneurship and availability of credit,
 - ✓ To balance the interests of all the stakeholders including alteration in the order of priority of payment of government dues and
 - ✓ To establish an Insolvency and Bankruptcy Fund,

Insurance Sector and Pension Sector

- Insurance penetration, which is premium volume as a ratio of GDP, was 2.71 per cent in 2001 and 3.3 per cent in 2014. (Global Average for life insurance – 3.4%)
- Insurance density, which is measured as the ratio of premium to population (per capita premium), increased from US \$11.5 in 2001 to US \$55 in 2014. (Global Average for life insurance – US \$368)

Pradhan Mantri Suraksha Bima Yojana (PMSBY)

- A renewable one-year accidental-death-cum-disability cover to all subscribing bank account holders in the age group of 18 to 70 years for a premium of Rs 12 per annum per subscriber.
- The risk coverage available will be Rs 2 lakh for accidental death and permanent total disability and Rs 1 lakh for permanent partial disability for a period of one year.

Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY): A renewable one-year term life cover of Rs 2 lakh to all subscribing bank account holders in the age group of 18 to 50 years.

Atal Pension Yojana (APY)

- Provides a defined pension, depending on the contribution and its period.
- The subscribers to the APY will receive a minimum pension of R 1000, 2000, 3000, 4000 or 5000 per month, from the age of 60 years, depending on their contributions, which are themselves based on the age of joining the scheme.
- The scheme is open to all bank account holders.
- The central government co-contributes 50 per cent of the total contribution subject to a maximum of Rs 1000 per annum, to each eligible subscriber's account, for a period of five years.

CHAPTER 4: EXTERNAL SECTOR

Global Economic Environment

- Modest pick-up in growth in some of the advanced economies.
- Growth in the US is expected to remain resilient owing to strengthening of the housing and labour markets.
- Growth in the Euro area and Japan, is expected to increase due to stronger private consumption supported by lower oil prices and easy financial conditions is expected to outweigh the weakening in net exports.
- Chinese economy is gradually slowing down and is transitioning from investment demand to consumption demand and from manufacturing to services.
- A dual monetary policy--a gradual tightening in monetary policy in the US in the backdrop of its resilient recovery and easy monetary policy in several other major advanced economies-has led to continued uncertainties and poses challenges for the year ahead.
- The IMF's growth forecast for India is 7.5 per cent in 2016 and 2017 and this surpasses the projection of 6.3 per cent and 6.0 per cent respectively for China.
- The level of global economic activity has a significant and direct bearing on the growth prospects of the emerging economies through trade channels.

India's Merchandise Trade

- India's merchandise exports have been declining continuously starting Dec 2014
- During the current financial year (April-January), growth in India's exports declined year-on-year by 17.6 per cent and they stood at US\$217.7 billion.
- Reason - sluggish global demand and low global commodity prices, particularly of petroleum.
- A decomposition of the decline indicates that it is Petroleum, Oil and Lubricants (POL) exports which contributed to it by as much as 55.0 per cent and engineering goods by 24.0 per cent.
- Imports have declined by 15.5 per cent in the current financial year (April-January) to US\$324.5 billion. Majorly due to lower levels of POL imports.
- The top eight export sectors— petroleum products, gems and jewellery, textiles, chemicals and related products, agriculture and allied sector, transport equipment, base metals and machinery-- continue to dominate India's export basket, accounting for nearly 86.4 per cent of total exports in 2014-15.
- The top 5 import sectors – Petroleum crude and products, gems and jewellery, gold and silver, chemicals and electronics items – account for nearly 71% of total imports in 2014-15

Direction of Trade

- The share of advanced economies that were adversely affected by the global slowdown in total Indian exports fell significantly.
- America (North America and Latin America) fell from 20.1% in 2004-05 to 19.0% in 2014-15
- Europe from 23.6% in 2004-05 to 18% in 2014-15.
- Asia - Marginal increase in the share of Asia from 47.9 per cent in 2004-05 to 49.6 per cent in 2014-15.
- In 2014-15, the trade deficit was marginally higher at US\$137.7 billion.
- Trade deficit continued to be at a lower level due to the decline in the value of POL imports by 16.0 per cent, caused by a fall in international oil prices by 20.2 per cent.

Trade Policy

Salient Points of Foreign Trade Policy 2015-20

- FTP aims to increase India's exports to US\$900 billion by 2019-20.
- Merchandise Export from India Scheme (MEIS) -
 - ✓ Earlier export promotion schemes have been merged into MEIS.
 - ✓ Notified goods exported to notified markets will be incentivized.
 - ✓ Countries have been grouped into 3 categories for grant of incentives – Traditional Markets, Emerging and Focus markets and Other Markets

- Service Export From India Scheme (SEIS) –
 - ✓ The SEIS applies to ‘service providers located in India’ instead of ‘Indian service providers’.
 - ✓ Provides for incentives to all service providers of notified services who are providing services from India
 - ✓ The rates of incentivization under the SEIS are based on net foreign exchange earned.
- Duty credit scrips are freely transferable and usable for payment of custom duty, excise duty and service
- Tax Incentives (MEIS & SEIS) to be available for SEZs - Will give a new impetus to the development and growth of SEZs.

WTO Negotiations and India

- The 10th Ministerial Conference of the WTO, 2015 held in Nairobi, whose outcomes, referred to as the ‘Nairobi Package’ include Ministerial Decisions on agriculture, cotton and issues related to least developed countries (LDCs).
- These cover
 - ✓ Public stockholding for food security purposes,
 - ✓ A Special Safeguard Mechanism (SSM) for developing countries,
 - ✓ A commitment to abolish export subsidies for farm exports particularly from the developed countries and measures related to cotton.
 - ✓ Decisions were also made regarding preferential treatment to LDCs in the area of services
- India, along with many other developing countries, from groups such as the G-33, LDCs, and the Africa Group, wanted a reaffirmation of the mandate of the Doha Development Agenda.
- Elimination of Export Agriculture Subsidies
 - ✓ Developed countries have committed to removing export subsidies immediately, except for a few agricultural products
 - ✓ Developing countries will keep the flexibility to cover marketing and transport subsidies for agriculture exports until the end of 2023,
 - ✓ The LDCs and net food-importing developing countries would have additional time to cut such export subsidies.
- IPR
 - ✓ Decisions adopted extends the relevant provision to prevent ‘evergreening’ of patents in the pharmaceuticals sector.
 - ✓ This decision would help in maintaining an affordable and accessible supply of generic medicines.
- Preferential Treatment to LDCs – India supported enhanced preferential rules of origin for LDCs and preferential treatment for LDC services providers.

Bilateral and Regional Cooperation

- Multilateral trade agreements are the first best solutions for deepening global trade and development as they are founded on the core principles of non-discrimination.
- But the negotiations under WTO being very slow due to requirement of broad based consensus, Regional Trade Agreements (RTAs) have acquired importance.
- India views RTAs as building blocks in the overall objective of trade liberalization as well as complementing the multilateral trading system under the WTO.

TPP and its Implications on India

- The 12 Pacific Rim nations (Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, the US and Vietnam) signed the TPP agreement.
- The 12 members of the TPP account for around 40 per cent of global GDP and around 60 per cent of merchandise trade.
- The TPP trade agreement is very comprehensive and includes -
 - ✓ Tariff-eliminating mega regional trade pacts,
 - ✓ Aims at setting higher global standards for international trade through lower benchmarks for nontariff barriers,

- ✓ More stringent labour and environment regulation,
- ✓ Higher intellectual property rights (IPR) protection,
- ✓ Greater transparency in government procurement and limiting advantages to state-owned enterprises (SOE)

Implications – In case India Joins

- India's exports would rise by around US\$5.3 billion annually;
- Imports into India would rise by US\$10.4 billion, leaving a net deficit in balance of trade of US\$5.1 billion

Implication – In Case India does not join

- Trade Diversion – India's export to US and EU will decline.
- Some of the export sectors such as textiles and clothing industry are likely to face stiff competition from Vietnam
- Investment Diversion – Investment from TPP countries would divert to member countries, like Vietnam would offer more robust investor protection.

Challenges which India will face if it joins TPP

- Openness of Markets – India's tariff rates in both goods and services are significantly higher than those in the TPP countries
- Import Competition - Domestic industries will face severe import competition due to tariff elimination
- Decline in competitiveness of domestic Industry - Implementation of stringent measures may raise the cost of production, threatening the survival of domestic manufacturing.
- SOEs - Membership of the TPP would prevent the government from using state-owned enterprises (SoEs) and government procurement as vehicles for achieving social and economic objectives.
- IPRs – Due to stringent IPR measures prices of pharmaceuticals will rise and generic drugs will be eliminated. Health cost in India will increase affecting the poor.
- Food Security – Agreement will curtail India's option to impose export restrictions on food, hence, it will jeopardize India's endeavour to ensure food security
- Labour Standards – Higher labour standards will increase labour cost in India and make Indian products uncompetitive.
- Environment Standard – TPP agreement includes provisions like wildlife trafficking, illegal logging and illegal fishing practices. This covers fishing subsidies which leads to overfishing. This will negatively impact current policy of fishing subsidy in India and hence the fishing industry.

External Debt

- India's aggregate external debt stock at end-March 2015 stood at US\$475.2 billion.
- The increase in external debt at end-March 2015 was due to higher levels of commercial borrowings, particularly commercial bank loans and securitized borrowings, and NRI deposits.
- The composition of external debt also reflects a well-maintained longer maturity profile and broad balance in terms of sources. (Roughly Long Term Debt – 82% and Short Term Debt – 18%)
- External Commercial Borrowings form significant part of external debt (roughly 38%). Trends in rising ECBs is due to policies like –
 - ✓ Increase in access to rupee denominated borrowings,
 - ✓ Liberalization of the process of allocation of limits
 - ✓ Simplification of the procedure for ECBs.
- India's external debt has remained in safe limits as shown by the external debt to GDP ratio of 23.7 per cent and debt service ratio of 7.5 per cent in 2014-15.

Overall Trend in Inflation

- Persistent and elevated levels of inflation, in particular food inflation, were a major concern of the government during the period 2010-11 to 2013-14.
- Since 2014-15 onwards, the economy has been experiencing sustained moderation in general inflation.
- **Headline inflation i.e. CPI (combined) declined** from 5.9 per cent in 2014-15 to 4.8 per cent in April-December 2015-16.
- However, it has been ticking upwards lately and has touched 5.6 per cent in December 2015 owing to build up in food group inflation and adverse base effect.
- The decline in inflation was mainly driven by the **decline in the inflation in food articles and items under non-food non-fuel category.**
- The decline in CPI core inflation was largely on account of decline in the inflation of housing (rent), transport, communication, education and other services.
- **The largest impact of the decline in crude oil prices** during 2014-15 and 2015-16 has been on the WPI basket.
- **Impact of fall in crude oil Price on Inflation:**
 - ✓ Since India is dependent on import of crude oil to meet about 80 per cent of its crude requirement, global fluctuation in crude oil prices has significant impact on domestic inflation.
 - ✓ Price of the Indian basket of crude oil declined by 46 per cent in April-December 2015.
 - ✓ The decline in crude oil prices had **helped India deregulate diesel prices.**
 - ✓ **Deregulation has reduced the subsidy burden**, thereby helping reduce fiscal deficit. Post deregulation, decline in diesel prices has resulted in reduction in overall inflation.
 - ✓ Fall in crude prices has impacted WPI fuel and power inflation significantly, however the impact on CPI fuel & light is minimal.
- **Food Inflation:**
 - ✓ **The consumer food price index (CFPI)** basket comprises various categories such as cereals, pulses, vegetables, fruit, milk and eggs, meat and fish.
 - ✓ **CFPI-based inflation averaged 11.8 per cent** during 2012-13 to 2013-14 and thereafter declined sharply to 6.4 per cent in 2014-15 and further eased to 4.6 per cent in April-December 2015-16.
 - ✓ **The urban CPI basket has been experiencing lower inflation as compared to the rural consumer expenditure-based basket.** The global commodity prices meltdown has pulled down prices of fuel products and other tradable and has benefited urban consumers.
- **Urban and Rural Sector Inflation**
 - ✓ The general inflation measured separately for the urban and rural segments of the CPI have been widening in recent months.
 - ✓ Headline inflation for the urban sector stood at 4.7 per cent in December 2015, whereas the corresponding figure for the rural sector was 6.3 per cent.
 - ✓ The global commodity prices meltdown has pulled down prices of fuel products and other tradeables and has benefited urban consumers.
- **Wedge between CPI and WPI**
 - ✓ The wedge between CPI- and WPI-based inflation during the current financial year has been significantly wide.
 - ✓ While WPI-based inflation continues to be in the negative zone for fourteen months in a row from November 2014 to December 2015, CPI-based inflation averaged 4.8 per cent during the same period.
 - ✓ The base years of the two series are eight years apart as WPI base revision is long overdue.
 - ✓ The weakness in global commodity prices, in particular crude prices, during the last one and half years has been the cause of decline in the WPI.

Agriculture and Food Management:

Overview

- The share of agriculture in employment **was 48.9 per cent of the workforce.**
- Its share in the Gross Domestic Product (GDP) was 17.4 per cent in 2014-15 (First Revised Estimates) at constant (2011-12) prices.
- During the last three years, the growth rates in agriculture have been fluctuating at 1.5 per cent in 2012-13, 4.2 per cent in 2013-14, and (-) 0.2 per cent in 2014-15.
- As per CSO estimates, the growth in the 'agriculture, forestry and fishing' sector is estimated at 1.1 per cent in 2015-16.

Area, Yield and Production:

- As per the Second Advance Estimates for 2015-16, **food grains production during 2015-16, estimated at 253.16 million tonnes**, is expected to be **higher by 1.14 million tonnes** over the production of 252.02 million tonnes during 2014-15.
- The acreage under several crops declined substantially in 2014-15 compared to 2013-14 as per the Fourth AE (Advance Estimates).
- **The largest decline in the areas of gram and groundnut** of around 20 and 15 per cent respectively.
- The introduction of Bt cotton resulted in a spurt in yield of cotton during the period 2010-11 over 2000-01.
- From 2010-11, the percentage changes in average yields of rice, wheat, pulses, oilseeds and cotton are also showing declining trends, which is a cause for concern.
- **International comparisons suggest** that India has significantly lower crop yields than a number of other countries.

Pathways to Productivity in Agriculture: For the agriculture sector to achieve a target of 4 per cent, a significantly different approach has to be followed

- **Irrigation**
 - ✓ As per the latest available data on irrigation, the all India percentage distribution of net irrigated area to total cropped area during 2012-13 was 33.9 per cent.
 - ✓ To raise the productivity of agriculture in India there is need to expand the acreage under irrigation along with **adoption of appropriate technologies for efficient utilization of water through suitable pricing.**
 - ✓ Having '**more crop per drop**' through efficient irrigation technologies should be the motto to improve productivity in agriculture which can ensure food and water security in the future.
- **Mechanisation**
 - ✓ The overall level of mechanization in farming is below 50 per cent in the case of majority of the farming operations in India.
 - ✓ The level of farm mechanization in India requires more to be done in terms of introduction of better equipment for each farming operation in order to reduce drudgery, to improve efficiency by saving on time and labour, improve productivity, minimize wastage and reduce labour costs for each operation.
 - ✓ The promotion of appropriate farm equipment needs to be made available for small and marginal farmers to improve productivity.
- **Seed Development**
 - ✓ It is estimated that the quality of seed accounts for 20 to 25 per cent of productivity.
 - ✓ There are multiple challenges to the development and adoption of quality seeds:
 - In the form of inadequate research inputs for development of new seeds especially early ripening and resistant (to pest, moisture variations, etc.) varieties.
 - High cost of seeds for small and marginal farmers.
 - Shortage of supply of quality seeds.
 - Non-resolution of issues related to adoption of Genetically Modified (GM) crops.
 - Inadequate number of players restricting competition.
 - ✓ Investment in public agricultural research in India needs to be augmented.
 - ✓ Private sector innovation and high yielding variety in seeds can result in productivity gains.

- **Fertilizers**
 - ✓ Fertilizer is a **critical and expensive input required to improve agricultural output**. In India, there has been a sharp increase in the use of fertilizers since the Green Revolution in the mid-1960s.
 - ✓ The yield of grain per kilogram use of NPK fertilizer has declined from 13.4 kg grain per ha in 1970 to 3.7 kg grain per ha in irrigated areas by 2005.
 - ✓ The **indiscriminate use of fertilizers** has not proportionally improved the yield of crops, but has also resulted in **the depletion of soil fertility and salination of soil in many areas**.
 - ✓ There is **need to rationalize fertilizer subsidy** in an input, crop and region neutral format and minimize diversions. The disbursement of subsidy on fertilizers should shift to DBT.
 - ✓ It is **important to facilitate the optimal use of fertilizers depending on the soil health and fertility status**.
 - ✓ The micro nutrient deficiency can be overcome if there is expansion of the use of organic fertilizer.
- **Pesticides**
 - ✓ In India, the farmer's crop yield losses range from 15 to 25 per cent owing to the presence of weeds, pests, diseases and rodents.
 - ✓ Even though pesticides are essential for improving crop yields, per hectare pesticide use is much lower in India in comparison with other countries. India uses a low amount of 0.5 kg per ha pesticide compared to 7.0 kg per ha in the USA, 2.5 kg per ha in Europe, 12 kg per ha in Japan.
 - ✓ Farmers need to be educated about the classification of insecticides on the basis of their toxicity.
 - ✓ There is also need for greater focus on Integrated Pest Management (IPM) which will encompass a judicious mix of pest control methods
- **Credit**
 - ✓ Credit is an important mediating input for agriculture to improve productivity. Access to institutional credit enables the farmer to enhance productivity by investing in machinery and purchase of variable inputs like fertilizers, quality seeds, and manure.
 - ✓ According to NSSO, **70th round data, as much as 40 per cent of the funds of farmers still come from informal sources**. Local money lenders account for almost 26 per cent share of total agricultural credit.
 - ✓ Though there has been a decline in informal sources over time, enhancing access to institutional credit for farmers needs to be addressed.
 - ✓ There is need to address the problem of availability of credit on several fronts. In respect of high interest rates, DBT may be considered to replace subvention of interest rates.
 - ✓ **The intermediation and refinance model to promote** agricultural credit needs to be revisited and replaced with DBT that shall subsidize the interest paid by the farmer, instead of subsidizing refinance to financial institutions.
- **Agriculture Extension Services**
 - ✓ Agriculture extension services have to be revitalized by making it more relevant, useful and timely in order to improve agricultural productivity.
 - ✓ It needs to take the form of a one-stop-shop that offers both hardware and software solutions to raise the incomes of farmers, especially small and marginal farmers.
 - ✓ It also needs to be done in an input, crop and region neutral way. The extension services should also aim at minimizing wastage in inputs in all agricultural operations and also in the produce.
- **Horticulture:**
 - ✓ Production:
 - India has witnessed voluminous increase in horticulture production over the last few years.
 - The percentage share of horticulture output in agriculture is more than 33 per cent.
 - Over the last decade, the area under horticulture grew by about 2.7 per cent per annum and annual production increased by 7.0 per cent.
 - ✓ **The Mission for Integrated Development of Horticulture (MIDH)**, was launched during the Twelfth Plan for the holistic development of the horticulture sector covering fruits, vegetables, mushrooms, spices, flowers, aromatic plants, coconut, cashew, cocoa and bamboo.

- **Concerns:**
 - ✓ The key concerns that the horticulture sector faces in India **are post-harvest wastages and losses.**
 - ✓ The wastage occurs at all levels of the value chain-at the levels of farmer, transporter, wholesaler and retailer.
 - ✓ **Solution lies in minimizing the wastage at all stages,** to enable farmers to get remunerative prices, and can be done by improving practices and facilities at each stage including the transportation stage.
- **Allied Sectors:**
 - ✓ India ranks **first in milk production,** accounting for 18.5 per cent of world production, achieving an annual output of 146.3 million tonnes during 2014-15.
 - ✓ Both egg and fish production has also registered an increasing trend over the years.
 - ✓ Fisheries **constitute about 1 per cent of the GDP** of the country and 5.08 per cent of agriculture GDP.
 - ✓ For sustainable and continuous growth of the livestock sector by emulating the success achieved in the dairy and poultry sectors, across species and regions, **the National Livestock Mission has been launched in 2014-15.**
 - ✓ **This Mission is formulated with the objective of sustainable development of the livestock sector,** focusing on improving availability of quality feed and fodder, risk coverage, effective extension, improved flow of credit, and organization of livestock farmers.
- **Food Management:**
 - ✓ The main aim of food management policy is to provide food security to the population.
 - ✓ Providing food security entails making food available at affordable prices at all times, without interruptions.
 - ✓ **Public Distribution System and Food Subsidy:**
 - The PDS strives to ensure food security through timely and affordable distribution of food grains to sections of population that live below the poverty line.
 - However, the system of PDS has many weaknesses leading to leakages and targeted beneficiaries being left out of the system.
 - There is a case for introducing DBT for consumers of food and kerosene as is under way in Andhra Pradesh.
- **Agri-Marketing Reforms:**
 - ✓ **National Agriculture Market:**
 - The scheme for setting up of a National Agriculture Market (NAM) through an Agri-Tech Infrastructure Fund (ATIF) was approved by the Cabinet Committee on Economic Affairs (CCEA).
 - Scheme envisages implementation of NAM by setting up of an appropriate common e-market platform that would be deployable in selected regulated wholesale markets in States/Union Territories (UT) desirous of joining the e-platform.
 - The Small Farmers Agribusiness Consortium (SFAC) will implement the national e-platform and will cover 250, 200 and 135 mandis during 2015-16, 2016-17 and 2017-18 respectively.

India's Agriculture-Trade:

- The agriculture sector is critical for achieving the objectives of food security and price stability.
- India has emerged as a significant agri exporter in a few crops, namely cotton, rice, meat, oil meals, spice, guar gum meal and sugar.
- As per the WTO's Trade Statistics, the share of India's agricultural exports and imports in the world trade in 2014 were 2.46 per cent and 1.46 per cent respectively.

Reforms undertaken to boost Industrial Sector:

- Reducing the list of Industries requiring Licenses.
- Liberalizing FDI: 49% in Defence, 100% in railway infrastructure, upto 49% in pension structure etc.
- Investment limit requiring prior consent of FIPB (Foreign Investment Promotion Board)/ CCEA (Cabinet committee on Economic Affairs) has been increased.
- Definition of NRI, PIO (Persons of Indian Origin) and OCI (Overseas Citizen of India) in the FDI policy has been revised.
- Schemes like Make in India, Invest India, Skill India etc. have been launched and National Investment and Infrastructure fund has been set up.
- Ministry of Environment and forest & climate change has initiated online clearance
- Coal block allocations have been done.
- Schemes like UDAY have been launched to strengthen the power sector.

Such Initiatives have seen an improvement of India's position from 142 in 2015 to 130 in 2016 in World Bank's Ease of doing Business report.

STEEL INDUSTRY

Problems with Steel Industry

- Indian Steel not competitive with Global Steel.
- Due to near-stagnant demand in China, Indian markets have seen increased dumping of steel

Steps taken to check surging steel imports and make domestic production sustainable:

- Increased customs duty
- Anti dumping duties and CVDs (countervailing duties) on steels imported from China, Malaysia, & South Korea
- Minimum import price has been imposed on a number of steel product
- Reduced export duty on iron ore of select steel products

MSME SECTOR: It provides employment to 8.05 crore people & contributes to 37.5 % of GDP

New Initiatives w.r.t to MSMEs:

- Udyog Adhar Memorandum (UAM) to promote ease of doing business for MSMEs by providing unique Udyog Adhar Number (UAN) by self-certification.
- Employment Exchange for Industries to provide workforce.
- Framework for revival and Rehab of distressed MSMEs.
- A scheme for Promoting Innovation and Rural Entrepreneur for setting technology centres for promoting start-ups.

FOREIGN DIRECT INVESTMENTS

Sector wise (15-16): Service > Computer Software & Hardware > Trading > Automobile> Telecom > Construction

Country wise (15-16): Singapore > Mauritius > Netherlands > USA

State wise (15-16): Delhi > Maharashtra > Karnataka > Tamil Nadu > Gujarat

POWER SECTOR

Initiatives taken:

- Integrated Power Development Scheme (IPDS) for strengthening sub transmission and distribution system.
- Deendayal Upadhaya Gram Jyoti Yojna for rural electrification.
- UDAY Scheme for financial support to DISCOMs.
- National LED Programme to replace domestic and street bulbs with LEDs. This would save electricity and also mitigate climate change by reducing CO₂ emissions.
- National Smart Grid Mission.

MINERALS

New Initiatives:

- Mines and Mineral (Development and Regulation) Act (MMDR)
- Pradhanmantri Khanij Kshetra Kalyan Yojna (PMKKKY): to implement various development and welfare schemes in mining affected area and to ensure long-term sustainable livelihood for people of affected areas.

PETROLEUM SECTOR

Issues in the petroleum sector:

- Pricing of Petroleum should be based on market mechanism in a transparent manner.
- Petroleum products and Natural gas should not be excluded from GST or at least its exclusion should not be indicated in the Constitutional Amendment Bill.
- Impetus has to be given to both inter country and city gas distribution.
- Rationalization of LPG subsidy is essential.
- Import of LNG is currently duty free for power use. It should be made exemption free for all uses.

Major Initiatives:

- Policy for Marginal Fields of ONGC and OIL devised for development of Hydrocarbon discoveries made by ONGC and OIL.
- Early production from newly discovered Hydrocarbon reserves has been taken up.
- A uniform Listening and single Exploration and Production license for all types of hydrocarbon is being formulated.
- Exploration of Unconventional Resources like Coal Bed Methane, Shale etc

NEW AND RENEWABLE ENERGY

Major Policy initiatives taken by the government

- National Offshore Wind Energy Policy
- Inclusion of renewable energy projects in the Priority Sector lending and offering easy loans.
- Liberalized entry of foreign capital for renewable energy projects
- Approval to National Tariff Policy 2005 by adding promotion of renewable energy as key objective and enhancing Renewable Purchase Obligation.

Major Initiatives Vis a Vis Solar Energy

- Solar Rooftop: Grid connected rooftop has been scaled up under National Solar Mission (NSM)
- Solar Parks: 25 solar parks & ultra mega solar parks has been proposed in next 5 years in Budget 14-15.
- Solar Pumps: over 1 Lakh solar pumps have been set up for irrigation & drinking purposes.

- Solar Cities: Approval has been granted for 56 solar city project under Development of Solar Cities Programme
- Surya Mitra Scheme: for creating 50,000 trained personnel within a period of 5 years (2019-20)

ROAD SECTOR

Major Policy initiatives taken by the government

- Scheme for development of NH and state roads in LWE areas.
- Special Accelerated Road Development Programme for North East Region (SARDP- NE)
- Bharatmala Project : umbrella scheme involving development of state roads along coastal areas, border areas including connectivity along non major ports, development of roads in backward areas, religious & tourist places , construction of bridges under Setu Bharatam Paryojna.

START UP INDIA

Proposed Action Plan under StartUp Initiative:

- Self Certification
- Setting up a start up India hub to create a single point of contact for entire start up ecosystem
- Relaxed norms for public procurement from start ups
- Legal support and fast tracking of patent examination
- Faster exit
- Tax exemptions on capital gains and profits for 3 years.
- Launch of Atal Innovation Mission and SETU program to promote innovation.
- Setting up research parks modeled in lines with that of IIT Madras

CONCLUSION

Supply side bottlenecks, infrastructural and structural constraints hindering the achievement of growth and development are addressed on a priority basis. Programmes like Make In India, Ease of doing business, Skill India, Start Up India, and reforms in Industrial and Infrastructure will go a long way in improving investment climate in India.

CHAPTER 7: SERVICES SECTOR

Service sector remains the key driver of India's economic growth, contributing almost 66.1 per cent of its gross value added growth in 2015-16, important net foreign exchange earner and the most attractive sector for foreign direct investment inflows.

World Service GVA

- USA ranked 1st in Service gross value added (GVA) and India ranked 10th
- India showed the highest annual growth in 2014-15 of 10.3% followed by China at 8%

World Service Employment

- As per World Bank, the share of services in global employment has increased to 50% in 2010. India has among the lowest share of 28.7% among major countries.
- As per International Labour Organisation's Report on "Global Employment and Social Outlook": Trends 2015, job creation in the coming years will be mainly in the service sector.

World Services Trade

- Impact of global financial crisis was more pronounced in services trade than GVA, with the CAGR of the world commercial serviced exports decelerating to 6.4% in post crisis period.
- India's service exports accelerated to 5% in 2014.

Policy Initiatives to promote services exports

- Service exports from India Scheme (SEIS) for increasing exports of notified services.
- Organizing Global Exhibitions on services and service conclaves.
- Service sector negotiations in bilateral / multilateral forums.

SECTOR WISE POLICIES

Initiatives taken in Tourism Sector including Medical Tourism

- Introduction of e-tourist visa.
- Revision of visa fees, on principle of reciprocity, which was earlier uniform for all countries.
- Schemes like Swadesh Darshan for development of theme based tourist circuits & PRASAD (Pilgrimage Rejuvenation and Spiritual Augmentation Yojna) were launched.
- To promote Medical Tourism, India's Health Care Portal as a comprehensive one point source for hospital and travel related information.

Suggestions to boost the sector

- Improvements in e-tourist and ordinary visa including extension of eTV window to 180 days instead of the current 30 days before the tour; need for multiple entry eTV instead of the existing single-entry eTV; extending eTV facility for medical tourists; streamlining the biometric process in overseas missions etc.
- Treating tourism as export of services to avoid being taxed and lower goods and services tax (GST) for tourism-related services as in many OECD countries
- Better investments through tax free bonds and IT exemptions, promoting PPP model, and channelizing CSR.
- Promoting medical tourism in the Brand India Campaign instead of the current fragmented approach, enhanced basic infrastructure for medical tourists at airports; promoting geriatric healthcare by leveraging expertise in ayurveda, yoga and unani

Initiatives taken in Shipping Services

- Tax-free fuel for all Indian flag coastal vessels engaged in container trade.
- Income tax benefits to Indian Sea farers to reduce cost of personnel & make shipping competitive.
- Easing procedural compliance like registration, payment of chartering fees
- India controlled tonnage Scheme that allows Indian companies to directly own ships with foreign flags.

- Vision for coastal shipping, tourism and regional development has been prepared to develop coastal shipping, integration of inland water transport through the Jal Marg Vikas project etc.

Suggestions to boost the sector

- Providing cheaper funds to replace ageing fleet of Indian Ships.
- Need to address port infrastructure and the relatively higher prices for port services in India.

Research and Development Services

Issues

- As per Global Competitiveness Report 15-16, India's capacity for innovation is lower than US, UK, South Africa etc.
- India features badly compared to BRICS nations in patents per million population ratio
- In terms of company spending as well India lies below China.

Initiatives taken in R & D Services

- Weighted tax deductions of 200% in R & D expenditure.
- Atal Innovation mission launched under NITI Aayog
- Self Employment and Talent Utilization (SETU) programme aims to develop world class technology business incubators to promote start ups.
- IMPRINT (Impacting Research innovation & Technology), a pan IIT & IISc joint initiative to develop a roadmap for research to solve major technology related challenges in India.

Port services

- The cargo traffic of Indian ports increased by 8.2 per cent to 1052.21 million tonnes in 2014-15, with traffic at non-major ports increasing at a faster rate than at major ports.
- In India's Maritime Agenda, the target for the year 2020 is 3130 million tonnes of port capacity with an investment of approximately R2,96,000 crore. More than 50 per cent of this capacity is to be created in the non-major ports.
- In 2014-15, 10 public private partnership (PPP) projects were awarded at an estimated cost of Rs 9376.43 crore for capacity addition of 95.11 million tonnes in the major ports.

IT-BPM Services

- The Indian IT-BPM industry consists of IT services (52 per cent), BPM (20 per cent), software products, engineering research and development (ER&D) and product development (19 per cent) and hardware (10 per cent).
- The industry currently employs more than 3.7 million people and is India's largest private sector employer.
- It is also playing a key role in promoting diversity within the industry, with more than 34 per cent women employees, over 170,000 foreign nationals and a greater share of employees from non-tier I Indian cities.
- Total revenue (exports plus domestic) of the IT-BPM sector for 2015-16 including and excluding hardware is expected to touch US\$143 billion and US \$129 billion, with growths of 8.3 per cent and 9.3 per cent over the previous year respectively.
- The government has been actively supporting the sector with the various flagship programmes like Digital India, Make in India, Skill India, E-governance and Startup India.

Consultancy Services

Issues

- Low brand equity
- Inadequate international experience
- Lack of local presence
- Lack of strategic tie ups & low competency image
- Lack of market intelligence on consulting opportunities abroad.

Initiatives

- Contracting and monitoring of consultants; and initiatives aimed towards capacity development of domestic consultants and sensitization of client organizations.
- Recent initiatives taken by the government such as Make in India, development of smart cities, skill development, along with the focus on improving industrial policies and procedures
- Consultancy services can also look forward to deriving revenues from newer services and newer geographies with Big Data, cloud, M2M and Internet of Things becoming a reality

Real Estate and Housing Services

Issues

- Housing sales have remained weak
- Procedural delays. As per Ease of Doing Business report India ranked 183 / 189 countries in terms of construction permits, requiring 40 procedures to get permits

Initiatives

- Amendment of FDI policy and removing minimum floor area and minimum capital requirements.
- RBI and National Housing Bank has reduces risk weights for housing loans of upto 75 lakhs.
- Housing for All scheme initiated to built 6 crore houses by 2022.

Internal trade

- Internal trade refers to the movement of goods and services across different geographical regions in the country.
- Presently internal trade is governed by a diversity of controls, multiple organizations and a plethora of orders resulting in
 - ✓ a fragmented market,
 - ✓ hindering the free flow of goods within the country,
 - ✓ higher transportation costs and
 - ✓ in general a lower level of efficiency and productivity
- Unfettered flow of goods and services is an essential pre-requisite for building a common market that will promote growth, trade across regions and also enable specialization and higher levels of economic efficiency.
- The retail sector is an important component of internal trade and a key sector for skill development, with a projected employment of 58 million people by 2022.

Media and Entertainment Services

- Indian media and entertainment industry grew by 11.7 per cent to R1026 billion in 2014 from R 918 billion in 2013.
- The industry has recorded unprecedented growth over the last two decades, making it one of the fastest growing industries in India.

Conclusion

A targeted policy of removing bottlenecks in major and potential services can result in large dividends in the form of higher services growth and services exports, which in turn can help in pulling up the economy to higher growth levels. Overall, the growth prospects of the services sector are promising. However, slowing global growth is a dampner.

INTRODUCTION

- The year 2015 witnessed two landmark international events:
 - ✓ the historic climate change agreement under the UNFCCC in Paris in December 2015
 - ✓ the adoption of the Sustainable Development Goals in September 2015.

CLIMATE CHANGE: PARIS AGREEMENT

- The 21st Conference of Parties (COP 21) under the United Nations Framework Convention on Climate Change (UNFCCC) successfully concluded in Paris **followed by adoption of the Paris Agreement on post-2020 actions on climate change.**
- This universal agreement will succeed the Kyoto Protocol. One of the main objectives of the agreement is to hold the increase in the global average temperature to well below 2°C above pre-industrial level and on driving efforts to limit it even further to 1.5°C.
- A marked departure from the past is the bottom-up approach, allowing each nation to submit its own national plan for reducing greenhouse gas emissions, rather than trying a top-down approach advocated by the Kyoto Protocol, giving each country a target.

Key provisions of Paris agreement

- **CBDR-RC:** The principle of Common but Differentiated Responsibility and respective capabilities (CBDR-RC) has been maintained across all the important pillars of the agreement.
- **NDCs:** Each party is required to submit their **Nationally Determined Contributions**, which can be subsequently improved upon.
- **Mitigation:** The parties aim to reach the global peaking of emission as soon as possible. Naturally, the peaking of emissions in developing countries will take longer. Hence it calls upon developed countries to realise this difference and take the lead in mitigation actions and also support the developing countries in their efforts.
- **Adaptation:** The agreement establishes the global goal on adaptation – of enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change – with a view to contributing to sustainable development.
- **Finance:** The agreement sets a binding obligation on developed countries to provide financial resources to developing countries for both mitigation and adaptation while other countries can provide support voluntarily. Developed countries are urged to scale up financial support with a complete road map towards achieving the goal of jointly providing US\$ 100 billion by 2020.
- **Technology Development and Transfer:** A new technology framework is being established. Further a link will now be established between the Technology Mechanism and the Financial Mechanism to allow for collaborative approaches in R&D and for facilitating access to technologies.
- **Transparency:** It requires information provided by all countries (regarding emission and tracking progress etc) to be subject to one technical expert review which will give due regard to respective national capabilities and circumstances.
- **Global stocktake:** The agreement also establishes a framework for global stocktake to assess achievement of long-term goals. The first stocktake is slated for 2023.
- There is a clear direction and positives for clean energy sector, energy efficiency and green finance, which will send strong market signals for clean technology as well.
- However, there could be pressure on emerging economies to announce peaking year of their emission. The new transparency framework with regular reporting is added obligation.

GREEN FINANCE: It mostly refers to financial investments flowing towards sustainable development projects and initiatives that encourage the development of a more sustainable economy. Examples include China's green credit guidelines, climate bonds, green buildings, sustainable transport, clean energy projects as well as controversial areas like nuclear energy and large-scale hydro energy.

- Over the past decade there have been advances in mainstreaming of green finance within financial institutions and financial markets. There have been informal efforts towards improving sustainable lending practices, increase in green bonds world over, assessment of financial impact of environmental policy changes and interest subventions etc.
- However, mobilization of private green finance is still lacking.
- Issues which need to be taken note of in context of India -
 - ✓ Green finance should not be limited only to investment in renewable energy, as for India, coal based power accounts for around 60% of installed capacity. Emphasis should be on greening coal technology.
 - ✓ Need to have an international agreed definition of green financing to prevent the issue of over-accounting.
 - ✓ Green finance should also consider unsustainable patterns of consumption as a parameter in deciding finance, particularly unsustainable lifestyles in developed countries.

INTENDED NATIONALLY DETERMINED CONTRIBUTIONS (INDC)

- INDCs are plans by governments communicated to the UNFCCC regarding the steps they will take to address climate change domestically.
- **Salient points of INDIA'S INDC**
 - ✓ To reduce emission intensity of its GDP by 33-35% of its 2005 levels by 2030.
 - ✓ To achieve about 40 per cent cumulative electric power installed capacity from non-fossil fuel-based energy resources by 2030.
 - ✓ To create an additional carbon sink of 2.5 to 3 billion tonnes of CO₂ equivalent by additional forest cover
 - ✓ To better adapt to climate changes by increasing investments in vulnerable sectors like agriculture, Himalayas etc
 - ✓ Increase mobilization of funds and development and transfer of technology.
- Considering India's poverty, development needs and vulnerability to climate change, its INDCs are ambitious.
- It seeks to achieve 60GW of wind power and 100GW of solar power by 2022 when total solar capacity around the world was 181GW in 2014.
- It will also seek to focus on clean coal energy considering the fact that coal would continue to be the dominant source of energy in future.
- India will also focus on adaptation. Out of the eight National Missions on Climate Change in India, five focus on adaptation in sectors like agriculture, water and forestry.
- Estimates suggest that at least US\$ 2.5 trillion at 2014-15 prices will be required for meeting India's climate change action under the INDC between now and 2030. **Budgetary support will not be enough and India needs to extend its sources beyond that.**

CLIMATE FINANCE

- Lack of a clear definition of climate finance has led to controversies in recent estimates of climate finance.
- Even private loans, export credits are included under green finance.
- Also it includes the promises, pledges and multi-year commitments and not actual disbursements as climate finance. There is a **need to define climate financing**.
- The definition should highlight basic elements like sources of funding, terms of funding and purpose of funding in addition to resources being committed/disbursed/new and an exclusion list. For example, development aid should not be counted as climate finance.

MULTILATERAL CLIMATE FUNDS

- Funds can be multilateral, bilateral or can be divided according to area of focus - mitigation, adaptation or REDD (Reducing emission from deforestation and forest degradation).

- Currently, the Green Climate Fund (GCF) is the largest, with pledges amounting to US\$10.2 billion (only US\$ 5.9 billion has been converted into contribution agreements).
- The second largest is the Clean Technology Fund (CTF) with pledges amounting to US\$5.3 billion.
- The Global Environment Facility (GEF), adopted as a financial mechanism for helping developing countries after Rio summit, has directly invested a US\$4.2 billion in 1010 projects for climate change mitigation till end of 2015.

INTERNATIONAL CARBON MARKETS

- The Clean Development Mechanism (CDM), created multilaterally under the UNFCCC is one of the mitigation instruments under the Kyoto Protocol.
- However, lack of mitigation ambition in the pre-2020 period suppressed the demand for certified emissions reduction (CER) credits.
- However, in the INDCs many parties have shown interest in using market mechanism for mitigation efforts. Now, it will take form of regional as well as national market mechanisms along with the multilateral form.
- Many of such instruments are in the process of implementation, in the form of a carbon tax or an emissions trading scheme. For example, the European Union Emission Trading System (EU ETS).
- India has the 2nd highest number of CDM projects after China. About 90-95 per cent of the projects are being developed by the private sector, facilitating investments of about Rs 583,751 crore (US\$ 87.77 billion), which is more than total of multilateral grants available for climate change related activities.

DOMESTIC ACTIONS ON CLIMATE CHANGE

- **NATIONAL ACTION PLAN ON CLIMATE CHANGE:** Presently there are eight missions under it to tackle different aspects of climate change. New Missions like Mission on climate change and Health, waste-to-energy, Mission on Coastal Areas have also been proposed under it.
- **State Action Plans on Climate Change (SAPCC),** which aim to create institutional capacities and implement sectoral activities to address climate change in the respective states will support it.
- **NATIONAL ADAPTATION FUND FOR CLIMATE CHANGE:** The fund has been established with a budget provision of Rs. 350 crore with aim to support concrete adaptation activities that reduce the adverse effects of climate change but are not covered under the ongoing schemes.
- **COAL CESS AND NATIONAL CLEAN ENERGY FUND:**
 - ✓ India has also been progressively increasing coal cess from Rs.50 per tonne in 2010 to Rs. 200 per tonne in 2015.
 - ✓ The National Clean Energy Fund (NCEF) which is supported by the cess on coal was created for the purposes of financing and promoting clean energy initiatives, funding research in the area of clean energy and for any other related activities. For 2015-16, Rs 4700 crore has been allocated in the Budget for NCEF projects.
- **PERFORM ACHIEVE AND TRADE (PAT):** The PAT scheme under the National Mission on Enhanced Energy Efficiency was introduced as an instrument for reducing specific energy consumption in energy-intensive industries with a market-based mechanism that allowed the trading of ESCerts (energy saving Certificate). Currently, scrutiny of the performance of industries under it is in process.
- **RENEWABLE ENERGY:** India is currently undertaking the largest renewable capacity expansion programme in the world (target of 40% from non-fossil fuel by 2030). The total renewable energy capacity target has been increased to 175GW by the year 2022, out of which 100GW is to be from solar, 60 GW from wind, 10 GW from biomass and 5 GW from small hydro power projects. Significant initiatives taken towards this objective:
 - ✓ First **Renewable Energy Global Investment Promotion Meet and Expo (RE-INVEST)** were organized in February 2015.
 - ✓ **International Solar Alliance** to provide a special platform for mutual cooperation among 121 solar-resource-rich countries lying fully or partially between the Tropic of Cancer and Tropic of Capricorn.

- ✓ Development of **Solar Cities Programme** under which 56 solar cities projects have been approved, 25 Solar parks and ultra mega solar power projects.
- ✓ **National Offshore Wind Energy Policy 2015** to help in offshore wind energy development, including setting up of offshore wind power projects and research and development activities.

SUSTAINABLE DEVELOPMENT

- The United Nations General Assembly (UNGA) in its 17th session announced a set of 17 SDGs and 169 targets for the next 15 years replacing MDGs that ended in 2015.
- The SDGs are much broader in scope than MDGs and have very comprehensive targets and finding indicators for each of the 169 targets will be a challenge.
- Apart from financing and adequate monitoring challenges, India also needs to prioritise its SDGs, as it will be difficult to target each goal.

CONCLUSION

- Successful implementation of the Paris Agreement, the SDGs and the ambitious targets of INDCs will require huge financial resources other than budgetary sources. **Leveraging private finance along with public finance, both international and national, will be critical.**

Introduction

- Social infrastructure has a significant role in the economic development of a country.
- Investing in human capital by way of education, skill development, training and provision of health care facilities enhances the productivity of the workforce and welfare of the population.
- The proportion of economically active population (15-59 years) has increased from **57.7% to 63.3% during 1991 to 2013**, as per Sample Registration System (SRS) data for 2013.

Education

Present State

- As a proportion of the Gross Domestic Product (GDP), expenditure on education has hovered around 3% during 2008-09 to 2014-15.
- At state level, Tamil Nadu had the highest share in education expenditure of about 12%, followed by UP with a share of 8.67%.
- In terms of per student expenditure, Sikkim and Goa spent more than rupees 2000, while Rajasthan and MP spent rupees 37 and 40 per student respectively.

Challenges

- **Decline in enrollment in Public Schools**
 - ✓ There is a decline in the percentage of enrolment in government schools in rural areas, from 72.9% in 2007 to 63.1% in 2014, as per the Annual Status of Education Report (ASER) 2014.
 - ✓ Decline in enrolment in government schools and some shift to private schools might **be largely related to the poor quality of education offered in government schools.**
- **Quality of Education**
 - ✓ According to ASER 2014, number of children in standard V who can read a textbook of standard II in Government schools, the decline is from 56.7% in 2007 to 42.2% in 2014, and the percentage of children who can do division in standard V has declined from 41% in 2007 to 20.7% in rural areas.
 - ✓ The decline in educational outcomes in private schools warrants equal attention since there is an increase in the share of private providers of schooling and education across India.
- **Lack of Professional Qualification and Training:**
 - ✓ According to the Unified-District Information System for Education (U-DISE) on 'School Education in India' 2014-15, only 79% of teachers are professionally qualified. For higher secondary, the percentage is only 69.
 - ✓ There is need to increase the percentage of qualified teachers and also the training of both qualified and under-qualified teachers.
- **Male Female Ratio**
 - ✓ **Gender Parity Index (GPI) at various levels of school education** has shown an improvement in girls education, with **parity having been achieved between girls and boys at all levels of education, except higher education in the case of total and Scheduled Caste (SC) students.**
 - ✓ In the case of ST students, parity has not been achieved across all levels
 - ✓ HDR 2015 gives the Gender Development Index (GDI) for 188 where mean years of schooling for girls in India at 3.6 years is substantially lower than the for for males

Actions Taken

- A '**Digital Gender Atlas for Advancing Girl's Education in India**' was launched on International Women's Day in March 2015. The tool has been developed **in partnership with the United Nations Children's Fund (UNICEF) to help identify low-performing geographic pockets for girls**, particularly from marginalized groups.

- A number of scholarship schemes to encourage enrolment and learning levels among different groups are in operation. National Scholarship Portal, a single window system for various types of scholarship schemes administered by different Ministries/ Departments.

Employment

Present State

- Employment growth in the organized sector, public and private combined, increased by 2.0% in 2012 over 2011, as against a growth of 1.0% in 2011 over 2010.
- The annual growth rate for the private sector was 4.5% in 2012 against a growth of 0.4% for the public sector.
- **According to the 4th Annual Employment-Unemployment Survey** conducted by the Labour Bureau during the period January to July 2014, the Labour Force Participation Rate (LFPR) is 52.5
- The LFPR for rural areas at 54.7 is greater than that for urban areas at 47.2.
- The LFPR for women is significantly lower than that for males in both rural and urban areas which is 29.1 and 18.5 respectively. It is amongst lowest in the world.
- The Worker Population Ratio (WPR) reflects a similar pattern, with women having lower participation rate in comparison to men in both rural and urban areas

Issues and Steps Taken

- The Government is keen to address the issue of low female LFPR and WPR and has launched various legislation based schemes and other programmes/schemes where the emphasis is on female participation.
- **Unable to capture complete data:** The conventional employment and unemployment surveys have not been able to capture the various types of unpaid work that women engage in both within and outside households. To solve this, government is planning to conduct a Time Use Survey across country.
- **Child Labour**
 - ✓ **The National Child Labour Project (NCLP)** scheme was launched under which children rescued/withdrawn from work in the age group of 9-14 years are enrolled in NCLP special training centers, where they are provided bridge education, vocational training, midday meal, stipend, health care, etc., before being mainstreamed into formal education system.
 - ✓ Children in the age group of 5-8 years are directly linked to the formal education system through close coordination with the Sarva Shiksha Abhiyaan (SSA).
 - ✓ Complete prohibition on employment of children below 14 years along with linking the age of prohibition with the age under the Right of Children to Free and Compulsory Education Act 2009, and stricter punishment for employers contravening the provisions have been proposed as amendment to the Child Labour (Prohibition & Regulation) Act, 1986.
- **Skill Gap**
 - ✓ According to the National Skill Development Corporation (NSDC), **there is a severe quality gap and lack of availability of trainers** in the vocational education and training sector.
 - ✓ The workforce requirement is **projected to increase to 320,000 by 2022.**
 - ✓ The establishment of the National Skill Qualification Framework (NSQF) will facilitate increased adoption of skill development programmes, with availability of pathways for progression between higher education and skill development.
 - ✓ **Under the Pradhan Mantri Kaushal Vikas Yojana (PMKVY)**, government is targeting to offer 24 lakh Indian youth meaningful, industry-relevant, skill-based training and a government certification on successful completion of training.

Health

Indicators

- As a proportion of GDP, expenditure on health has been around 2% from 2008-09 to 14-15.
- **Based on NSSO data 2015, there is nearly two-fold jump in the institutional deliveries** since the last survey.

- **Over 60% of all institutional deliveries are in the public sector** and the out of pocket expenditures for childbirth in the public sector is about one-tenth that in the private sector.
- Under five mortality has declined from **126 in 1990 to 49 in 2013**, much faster than global rate of decline during the same period.

Schemes

- Under the **Rashtriya Bal Swasthya Karyakram (RBSK)**, support is being provided to States/UTs for child health screening and early intervention services through early detection and early management of common health conditions.
- **Mission Indradhanush** has been launched to vaccinate those children and pregnant women who were either unvaccinated, or are partially vaccinated.
- **The National Iron Plus Initiative** has been rolled out to address anaemia among children (6 months to 19 years) and women.
- **Initiatives such as 'RBSK' and 'Rashtriya Kishor Swasthya Karyakram' (RKSK)** have been launched in 2013 and 2014 respectively under the NHM to provide comprehensive health care.

Issues

- The shortage of specialists, doctors, staff nurses, anesthetists, and others, adversely affects the outreach of health services, especially in rural areas.
- Consumption of contaminated drinking water, improper disposal of human excreta, lack of personal and food hygiene and improper disposal of solid and liquid waste have been causes of many diseases in India.

Poverty

- Based on the Tendulkar Committee methodology using household consumption expenditure data collected by the NSSO in its 68th round (2011-12) shows that **the incidence of poverty declined from 37.2% in 2004-05 to 21.9% in 2011-12**, with a sharper decline in the number of rural poor.
- While the rural poverty ratio declined from **41.8% in 2004-05 to 25.7% in 2011-12**, the **urban poverty ratio declined from 25.7% in 2004-05 to 13.7%** in 2011-12.
- The high rural poverty can be attributed to **lower farm incomes due to subsistence agriculture, lack of sustainable livelihoods in rural areas, impact of rise in prices of food products on rural incomes, lack of skills, underemployment and unemployment.**

Gender Issues

- Gender discrimination in India, which is embedded in the social fabric, continues in most spheres such as access to education, to social and economic opportunities.
- Apart from the cultural and social factors, **the lack of education and skills restricts** women from engaging in economically productive activities outside the household
- **In 2012, only 24.2% of females had accounts** in scheduled commercial banks. In rural areas, the percentage of women with bank accounts was 25.5% and in urban areas 23.6%. By 2014, the numbers became 27.5%, 26.9% and 27.2%, still quite low.

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