



# Economic

## Survey 2018-19

Volume - I & II



DELHI



JAIPUR



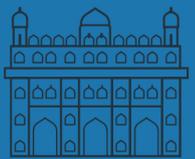
HYDERABAD



PUNE



AHMEDABAD



LUCKNOW



+91-8468022022



[www.visionias.in](http://www.visionias.in)

# ECONOMIC SURVEY SUMMARY 2019 - VOLUME I & II

## Table of Contents

|   |           |
|---|-----------|
| <b>VOLUME - I</b>   | <b>2</b>  |
| <b>CHAPTER 1: SHIFTING GEARS: PRIVATE INVESTMENT AS THE KEY DRIVER OF GROWTH, JOBS, EXPORTS AND DEMAND</b>        | <b>2</b>  |
| <b>CHAPTER 2: POLICY FOR HOMO SAPIENS, NOT HOMO ECONOMICUS: LEVERAGING THE BEHAVIOURAL ECONOMICS OF "NUDGE"</b>   | <b>4</b>  |
| <b>CHAPTER 3: NOURISHING DWARFS TO BECOME GIANTS: REORIENTING POLICIES FOR MSME GROWTH</b>                        | <b>9</b>  |
| <b>CHAPTER 4: DATA "OF THE PEOPLE, BY THE PEOPLE, FOR THE PEOPLE"</b>   | <b>12</b> |
| <b>CHAPTER 5: ENDING MATSYANYAYA: HOW TO RAMP UP CAPACITY IN THE LOWER JUDICIARY</b>                              | <b>15</b> |
| <b>CHAPTER 6: HOW DOES POLICY UNCERTAINTY AFFECT INVESTMENT?</b>  | <b>17</b> |
| <b>CHAPTER 7: INDIA'S DEMOGRAPHY AT 2040: PLANNING PUBLIC GOOD PROVISION FOR THE 21ST CENTURY</b>                 | <b>19</b> |
| <b>CHAPTER 8: FROM SWACHH BHARAT TO SUNDAR BHARAT VIA SWASTH BHARAT: AN ANALYSIS OF THE SWACHH BHARAT MISSION</b> | <b>22</b> |
| <b>CHAPTER 9: ENABLING INCLUSIVE GROWTH THROUGH AFFORDABLE, RELIABLE AND SUSTAINABLE ENERGY</b>                   | <b>25</b> |
| <b>CHAPTER 10: EFFECTIVE USE OF TECHNOLOGY FOR WELFARE SCHEMES- CASE OF MGNREGS</b>                               | <b>29</b> |
| <b>CHAPTER 11: REDESIGNING A MINIMUM WAGE SYSTEM IN INDIA FOR INCLUSIVE GROWTH</b>                                | <b>32</b> |
| <b>VOLUME – II</b>  | <b>35</b> |
| <b>CHAPTER 1: STATE OF THE ECONOMY IN 2018-19: A MACRO VIEW</b>   | <b>35</b> |
| <b>CHAPTER 2: REVIEW OF FISCAL DEVELOPMENTS</b>   | <b>37</b> |
| <b>CHAPTER 3: MONETARY MANAGEMENT AND FINANCIAL INTERMEDIATION</b>  | <b>40</b> |
| <b>CHAPTER 4: PRICES AND INFLATION</b>  | <b>43</b> |
| <b>CHAPTER 5: SUSTAINABLE DEVELOPMENT AND CLIMATE CHANGE</b>  | <b>46</b> |
| <b>CHAPTER 6: EXTERNAL SECTOR</b>   | <b>52</b> |
| <b>CHAPTER 7: AGRICULTURE AND FOOD MANAGEMENT</b>   | <b>57</b> |
| <b>CHAPTER 8: INDUSTRY AND INFRASTRUCTURE</b>   | <b>62</b> |
| <b>CHAPTER 9: SERVICES SECTOR</b>   | <b>68</b> |
| <b>CHAPTER 10: SOCIAL INFRASTRUCTURE, EMPLOYMENT AND HUMAN DEVELOPMENT</b>  | <b>71</b> |

Copyright © by Vision IAS

All rights are reserved. No part of this document may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without prior permission of Vision IAS.

# VOLUME - I

## CHAPTER 1: SHIFTING GEARS: PRIVATE INVESTMENT AS THE KEY DRIVER OF GROWTH, JOBS, EXPORTS AND DEMAND

### Introduction

The chapter gives an overview of the **accomplishments** of the Indian economy in the last five years and presents a blueprint to achieve the goal of **five trillion economy** in the next five years. In doing so, the Survey tries to go **beyond the traditional models of economy**.

### The Next Five Years: A Blueprint for Growth and Jobs

- With strong economic foundations laid over the last five years, the Survey advocates that, in order to achieve **US\$5 trillion economy** by 2024-25, India needs to sustain a real GDP growth rate of **8%**.
- To achieve this, the survey prescribes the **blueprint of a virtuous cycle of savings, investment and exports catalysed and supported by a favourable demographic phase**.
- In this blueprint, the **Investment, especially private investment**, is the “**key driver**” that drives demand, creates capacity, increases labour productivity, introduces new technology, allows creative destruction and generates jobs.
- To support this blueprint, the Survey has examined various countries such as **China and East Asian countries**, whose high growth rates were sustained by a growth model driven by **such a virtuous cycle and a favourable demographic phase**.

### Going beyond the Economics Of ‘Equilibrium’ in the Blueprint

- The blueprint starts with the philosophy that economies are **intricately interwoven systems**. Thus, it dumps two assumptions which were taken in the traditional economics-
  - **Economic Equilibrium**- which assumes that the economy is in balance until an outside shock upsets it, and thus it follows a linear system. This view has been challenged increasingly following the Global Financial Crisis.

### Last Five Years: The Accomplishments

- **Macroeconomic Stability**-
  - **Growth**- India became the **sixth largest economy** due to sustained growth rates higher than China. India grew at **7.5%** against the world growth of **3.6%**.
  - **Inflation**- Following the formation of Monetary Policy Committee (MPC), inflation has remained within the mandated band of 4%.
  - **Fiscal Management**- the gross fiscal deficit (GFD) to GDP ratio declined from 4.5% (2013-14) to 3.4% (2018-19), following the broad mandate of Fiscal Responsibility and Budget Management (FRBM) Act, 2003.
  - Apart from its average inflation, the fiscal deficit, the current account deficit (CAD) remained within manageable levels and foreign exchange reserves rose to all-time highs.
- **Beneficiary focus and targeted delivery**- to ensure the benefits of growth reach the bottom of the socio-economic ladder. It was achieved through a **JAM (Jan Dhan, Aadhaar, Mobile) trinity** and 370 major cash-based schemes were implemented under the Direct Benefit Transfer mechanism.
- **Accelerated creation of physical infrastructure**- in areas of **electricity, national highways, bridges, aviation sector** among others, such as
- **Strengthened the mechanisms of federalism**- through the Niti Aayog, the Goods and Services Tax and involvement of states in a friendly competition to improve their Key Performance Indicators (KPIs).
- **Corporate Exits**- has been eased by the introduction of the **Insolvency and Bankruptcy Code (IBC), 2016**, which has allowed the recovery of large sums by creditors from resolution or liquidation.

### Role of other different factors in the virtuous cycle

- **Savings**- are crucial for more investment, which in turn create more savings through generation of resources.
- **Jobs**- The survey uses Chinese experience to illustrate how countries with highest investment rates also create most jobs.
- **Exports**- creates additional demand for the large capacities created by high investments in the economy. Apart from it, they are crucial as higher savings preclude domestic consumption as the driver of final demand.



- **Economy functions in silos**- which assumes that other social and institutional features and their developments in the country do not impact it. Thus, it attempts to solve job creation, demand, exports, and economic growth as separate problems.
- As these macro-economic phenomena **exhibit significant complementarities**, the Survey postulates the **centrality of the triggering macro-economic variable (i.e. investment)** that catalyses the economy into a virtuous cycle.
- Hence, going beyond the traditional approach, the blueprint has been designed with a thought that an economy is in a constant **state of dis-equilibrium**. So, it requires both- a **general strategy (blueprint of virtuous cycle)** as well as the flexibility and willingness to **continuously recalibrate tactics** in response to unanticipated situations.
- These **tactics** have been discussed in details in various chapters of the Survey, which can help drive investments and to navigate this world of **constant dis-equilibrium**. These are-
  - **Behavioural Economics**- which can be integrated into policymaking to foster productivity and achieve desired outcomes. Here, the survey has analysed the successful behavioural change effected by the schemes like Swachh Bharat Mission and other measures taken by government to understand the psychology of people.
  - **Data as a public good**- Here the framework for creation of data as a public good has been discussed, which can be utilized by the governments to enhance ease of living for citizens, enable truly evidence-based policy, improve targeting in welfare schemes, uncover unmet needs, integrate fragmented markets, bring greater accountability in public services etc. Given that sophisticated technologies exist, such framework can be created within the legal framework of data privacy.
  - **Improving Legal systems and Contract Enforcement**- which is currently weak in India due to large pendency of cases. The World Bank's latest **Ease of Doing Business Report** ranked India at **163** for contract enforcement. Since, we live in a world of "butterfly effects" and unintended consequences, improving legal system is the best investment, which Indian reforms can make. The survey suggests the use of technology, increase in working days and administrative reforms to achieve legal sector reforms.
  - **Consistency in Economic Policymaking**- Here the survey examines the policy uncertainty in India and its impact on investment. The survey suggests that there should be predictability of policies, under the overall coherence of vision and strategy adopted by the government.
  - **Role of demographics**- as India will remain in the '**demographic dividend**' zone for over two decades. The survey analyses that savings are primarily driven by demographics and income growth. For this it recommends that policymakers should reduce the cost of capital and real interest rates, which can foster the virtuous cycle of investment, growth, exports and jobs.
  - **Role of job creation and earnings**- Here the survey analyses that **Dwarfs**, which can be defined as small firms that never grow beyond their small size, dominate the Indian economy and hold back job creation and productivity. Thus, the survey advocates focusing incentives on **infant firms**, i.e. firms less than ten years of age, with the appropriate grandfathering of the existing pattern of incentives to MSMEs.
  - **Role of financial sector**- through banks and capital markets, which can lower the cost of capital for investment, has been discussed. In this regard, the efforts to clean up the banks and the Insolvency and Bankruptcy Code (IBC) framework are important foundations that will reap benefits when the investment-driven growth model is put into motion, as the incentives get aligned towards better quality lending.
  - **Trade-off the risk- return in the economy**- There must be sufficient incentives for risk-taking which can further the savings-investment process. As investment represents a forward- looking activity, investors eventually make their decisions to invest based on the risk- adjusted return they expect. In this regard, the survey highlights the role of IBC framework again, optimal tax policy that can foster innovation and start-ups to take risks.

### Way Forward

The creation of an ecosystem for private investment is critical to enable the virtuous cycle of investment, demand, exports, growth and jobs.

# CHAPTER 2: POLICY FOR HOMO SAPIENS, NOT HOMO ECONOMICUS: LEVERAGING THE BEHAVIOURAL ECONOMICS OF "NUDGE"

## Theme

This chapter studies the impact of behavioural economics in achieving suitable results of government policies. It studies this approach in the schemes such as Swachh Bharat Mission, Jan Dhan Yojana, Beti Bachao Beti Padhao and then propounds the principles for applying these insights to public policy. Using these learnings, the chapter lays out an ambitious agenda for social change through gender equality, a healthy India, from tax evasion to tax compliance and other government programs.

## Introduction

- Traditional economics treats humans like robots devoid of their vital strengths and weaknesses. However, a branch of economics called **Behavioural Economics** models humans the way they are, with all their idiosyncrasies. Human choices are driven and limited by the mental resources i.e. cognitive ability, attention and motivation.
- Drawing on the psychology of human behaviour, Behavioural Economics provides insights on ‘**How to nudge people**’ towards desirable behaviour, by incorporating innovative interventions in policies. Behavioural economists have long touted the power of the “**social norm**” as most people want to behave or be seen to behave in congruity with these norms.
- Public policies can be graded on a spectrum capturing how strongly they influence behaviour from minimal influence to coercion as-



- On **one extreme is laissez faire**, i.e. doing nothing and leaving individuals/ firms to chart their own course. However, Laissez faire works well only when markets achieve socially desirable outcomes on their own. For instance, individuals/firms in a free market would not restrain pollution.
- **On the other extreme are the public policies** – in the form of regulation – that **mandate** people to act in a socially desirable manner.
- Sandwiched between these extremes are policies that incentivize good behaviour or dis-incentivize bad behaviour, such as subsidies for renewable energy and taxes on tobacco.
- “Nudge” policies lie between laissez faire and incentives.
- There are some general problems with people’s behaviour which the principles of behavioural economics try to address-
  - **Wrong default rules-** where people tend to follow the wrong default option given to them (Anchoring bias), such as availing subsidy benefits.
  - **Wrong social norms-** where people tend to follow the trend of other people and emulate bad behaviour. There is lack of awareness of the benefits of good behaviour, such as the prevalent bias against girl child.
  - **Lack of incentives-** for people to behave correctly, rather people try to avoid it so as to avert the losses, which might come with taking a correct but difficult decision (Loss aversion bias).
  - **Flawed mental models-** which makes people behave in a certain manner without thinking of its implications, such as, not taking up vaccination or not paying taxes owing to a set mentality.
- **Understanding the principles** of behavioural economics can bridge the gap between people’s preferences and the choices they make-

## Principles of Behavioural Economics

| Cognitive bias                             | Behavioural principle                          | General application across all programs   |
|--|--|---|
| Anchoring bias                             | Principle 1: Leverage default rules            | <ul style="list-style-type: none"> <li>Choose the right default; default choice should maximise welfare.</li> <li>Make the default 'opt-in' for welfare programs like insurance, retirement savings, organ donation, etc.</li> <li>Make the default 'opt-out' for purchasing add-on services, enrolling for a subsidy, etc.</li> </ul>  |
|  | Principle 2: Make it easy to choose            | <ul style="list-style-type: none"> <li>Keep options few in number and easy to comprehend.</li> <li>Reduce logistical and administrative impediments to choosing.</li> <li>Offer micro-incentives.</li> </ul>  |
| Failure bias                               | Principle 3: Emphasize social norm             | <ul style="list-style-type: none"> <li>Emphasize the number of people who vote, save regularly, file taxes on time, etc. – the enhancers of good behaviour.</li> <li>Wherever possible, clarify the insignificant role of detractors/ negative influencers to avoid "failure bias".</li> <li>Focus on influencers that people can relate to, for example those in the same geography or age group.</li> </ul> |
|  | Principle 4: Disclose outcomes                 | <ul style="list-style-type: none"> <li>Disclose the realized benefits of good behaviour.</li> </ul>   |
| Sunk cost bias                             | Principle 5: Reinforce repeatedly              | <ul style="list-style-type: none"> <li>Remind people of past good behaviour, for example, that they saved regularly for the last three months, to invoke the sunk cost fallacy; people tend to continue their past behaviour, especially when reminded about the same.</li> <li>Elicit a pre-commitment for desired behaviour, and if possible, enable immediate action as per the commitment.</li> </ul>     |
| Loss aversion bias                         | Principle 6: Leverage loss aversion            | <ul style="list-style-type: none"> <li>Design incentives to reward good behaviour <i>ex ante</i> with threat to revoke reward later if behaviour fails to match expectations.</li> </ul>  |
| Flawed mental models and confirmation bias | Principle 7: Make messages match mental models | <ul style="list-style-type: none"> <li>Train people to shift to new rules of thumb, for example, "fluids out – so fluids in" to increase fluid intake during diarrhoea.</li> <li>Make the rules of thumb catchy, easy to remember and intuitive.</li> </ul>   |

### Using Behavioural Economics to avoid Seven Social Sins

Each of the Mahatma Gandhiji's Seven Social Sins, published in **Young India** on October 22, 1925, provide deep insights into the role of socio-political conditions and is a statement of principle that can be interpreted and utilized for nudging people towards desirable behaviour, as-

- Politics without principle-** Addressing the principle of loss aversion (e.g. avoiding hard policy decisions) of policymakers can improve policy and legislative outcomes.
- Wealth without work-** Disclosing the realized benefits of good behaviour (e.g. tax compliance) can address the perception of some people getting things for 'free' as an entitlement.
- Pleasure without conscience-** By using the default 'opt-out' for availing subsidy, the issue of less deserving people claiming benefits of a development program can be addressed.
- Knowledge without character-** People can be nudged with right messages explaining the biases, which exist in society along with importance of soft skills (self-control) along with cognitive skills.
- Commerce without morality-** The National Corporate Social Responsibility Awards of Ministry of Corporate Affairs is an initiative in this direction, which acknowledges ethical behaviour of companies.
- Science without humanity-** Using the behavioural principle of "Making it easy to choose", technology can make things simple to understand, cut through layers of processes and target the benefit to the actual beneficiary.
- Worship without sacrifice-** Practicing religion without developing an embedded sense of sacrifice, empathy and humility to serve the needs of other people is self-defeating. E.g. The MARD (Men Against Rape and Discrimination) campaign underlies the sacrifice of the male ego in a patriarchal society for the larger good of gender equality.

### An Aspirational Agenda for Path-Breaking Change

- Over the last five years, several schemes were implemented on the back of successful behavioural change. The Swachh Bharat Mission (SBM) and the Beti Bachao, Beti Padhao (BBBP) schemes are cases in point.
- The schemes have also used **the power of clear messaging**, by using socially & culturally identifiable names to give a clear message of the objectives of the programme. Such as- Namami Gange, POSHAN Abhiyan, Ayushman Bharat etc.
- To this purpose, the survey on the principles outlined above to create an aspirational agenda for path-breaking change. The section combines-
  - Suggestions for transforming some of the existing programmes into revolutionary ones aimed at removing social ills
  - Ways to radically improve existing programmes.
- Various such aspirational areas have been discussed such as
  - **from BBBP to BADLAV (Beti Aapki Dhan Lakshmi Aur Vijay Lakshmi)-**
  - **from Swachh Bharat to Sundar Bharat**
  - **from “Give It Up” for the LPG subsidy to “Think about the Subsidy”-**
  - **from tax evasion to tax compliance-**
- Some of them have been discussed in detail here-

**Success stories of Behavioural Economics in Indian Policies**

- **Swachh Bharat Mission (SBM)-**
  - The campaign was launched on 2<sup>nd</sup> October, the birthday of Mahatma Gandhi. It symbolises the values propagated by him and thereby create a mass movement on the lines of ‘satyagraha’ for a cleaner India.
  - More than five lakh swachhagrahis (similar to satyagrahis), foot soldiers of the SBM, were recruited to reinforce the message of toilet usage.
  - Participatory Rural Appraisal and Community-led Total Sanitation induced people to come together, appraise their community’s open defecation situation.
- **Beti Bachao Beti Padhao (BBBP)-**
  - The campaign was flagged from Panipat, Haryana, which had the worst child sex ratio at 834 among other Indian states. The choice of Panipat was used symbolically as it has a history of battles, and here the battle was with social bias against girls.
  - Similar symbolic launches were done in other states.
  - Used ‘social norm’ in its ‘Selfie with Daughter’ initiative to celebrate birth of girl child.

| Principle                     | BADLAV  | Sundar Bharat   | Jan Dhan Yojana  | Tax Compliance   |
|-------------------------------|---|---|--|--|
| <b>Leverage default rules</b> |   | By giving default flu shot appointments and smart insurance plans to improve vaccination rates and insurance coverage of people.  | Make auto enrolment into a savings plan the default while offering people the option to opt out.   | Automatic deduction of tax and directing all or portion of refunds into savings accounts can be used to encourage savings, including retirement savings. |
| <b>Make it easy to choose</b> | Simplify the procedures for women, making it easier for them to perform various activities like open bank accounts, get government documents etc. | <ul style="list-style-type: none"> <li>• Modify the health insurance plans by restricting it to those factors, which matter to people.</li> <li>• Providing healthy options in school and college canteens can increase the uptake of nutritious food.</li> </ul> | Regulator must ensure that products for the poor do not confound with too many options. E.g. as done in the Jeevan Jyoti Bima Yojana             | Removing barriers to filing taxes- procrastination, hassle of filling forms, or failing to understand the terms- can improve compliance.                 |
| <b>Emphasize social norms</b> | Highlight and advertise women leaders, be it in entertainment, business or politics, as   | <ul style="list-style-type: none"> <li>• Launch campaigns highlighting the volume of people with non-consumption of drugs and alcohol, so to</li> </ul>   | Every person can be sent an SMS at the end of the month about his/her transactions, those of others in his village, and his relative standing in | Providing information about peer behaviour can make taxpayers adjust their reported income.  |

|  |   |   |  |   |
|--|---|---|--|---|
|  | <p>role models so that people can relate to them as proximate 'others'. Even mythological characters such as Maitreyi, Gargi can be highlighted for the same.</p> | <p>nudge the adolescents who consider their uptake as socially desirable behaviour. Further, drug prevention can be more impactful after a celebrity death due to drug overdose.</p> <ul style="list-style-type: none"> <li>Establish the social norm that vaccinations are safe and highlighting the number of people in the neighbourhood can help people take up health insurance plans</li> </ul> | <p>the village on this metric.</p>   |   |
| <b>Disclose outcomes</b>               | <p>Publish gender rankings in public domain on all counts like pay gap, numbers in legislature, bureaucracy etc.</p>  | <p>Disclosing realized benefits of hand washing or family planning could encourage people to adopt these healthy practices.</p>   | <p>Holders of dormant accounts may be periodically reminded of the number of people in their neighbourhood who actively use their accounts. On the other hand, regular users can be encouraged with a congratulatory message.</p>                        | <p>Public shaming of individuals who don't pay taxes can reduce non-compliance if they are reintegrated immediately.</p>                  |
| <b>Reinforce repeatedly</b>            | <p>Multiple and regular visual and print advertisements to reinforce the positive norm of gender equality.</p>  | <ul style="list-style-type: none"> <li>Use messaging to ask people plan their vaccination as well as nudge patients to take drugs regularly.</li> <li>Doctors can nudge patients by making them commit towards healthy practices.</li> </ul>  | <p>By simply asking people whether they plan to save next month, the intention to save can be reinforced. Committing people to how much they plan to save can also help reinforce the intention to save.</p>   | <p>Repeatedly sending fairness driven and normative messages.</p>   |
| <b>Leverage loss aversion</b>          | <p>Modify reward structures to ameliorate the higher aversion of women to competition. E.g. application fees for women applicants in jobs can be waived.</p>      | <p>People often find it difficult to achieve goals like weight loss or ceasing to smoke. People voluntarily made to post bonds (deposit contracts) or lottery tickets on a website that will be returned to them if they achieve their goals, but are forfeited otherwise, can help them achieve these difficult goals.</p>   | <p>People can be asked to save more when their salary increases, as at such times, people are less likely to consider increased savings as a loss than at other times of year.</p>   | <p>Tax cuts presented as a bonus (gain) are more likely to be spent than tax cuts presented as a rebate (loss).</p>                       |
| <b>Match messages to mental models</b> | <p>Remove all gender stereotypes, which impact women, in taking a decision towards a job or workplace or any test, and impact their initiative towards them.</p>  | <ul style="list-style-type: none"> <li>Information campaigns on adoption of Oral Rehydration Solution should be taken up to bust the perception that the solution to diarrhoea is to decrease the child's fluid intake.</li> <li>Use the role of influencers and cultural tailoring of health messages can be used to nudge mothers</li> </ul>  | <p>Make people to attach purpose with their money. People may be asked to choose their own names such as "home savings plan" or "education savings plan." All outgoing communications from banks should stress the chosen name to reinforce savings.</p> | <p>Reminding tax payers that public goods can only be provided in return for tax compliance (reciprocity appeal) can boost tax morale</p> |

|  |  |   |  |
|--|--|---|--|
|  |  | adopt breastfeeding, people to leave smoking and encourage early diagnosis of diseases. |  |
|--|--|---|--|

### Implementing the Aspirational Agenda for Behavioural Change

To avail the benefits from behavioural change, the following measures are suggested for implementation-

- **Setting institutions-** Setup a behavioural economics unit in the **Niti Aayog**, which is manned only by experts in this area. Many governments, including the U.S., the U.K. and Australia, have set up dedicated units to use behavioural insights for effective policymaking.
- **Changes in programs-** Every program must go through a **“behavioural economics” audit** before its implementation. This audit may adhere to the principles of behavioural economics outlined above to conduct its audit.
- **Cooperation with the states-** The behavioural economics team should work with various state governments not only to inform them about the potential benefits but also help them to improve the efficacy of the programs.

### Way Forward

Behavioural economics is, however, not a panacea to policymaking; its potential needs to be understood and put in perspective. Nudge policies cannot and should not supplant every incentive-based and mandate-based policy. In fact, many incentive and mandate-based policies may be clubbed with a nudge effect to increase their efficacy.

**“You are as strong as your Foundation”**

# FOUNDATION COURSE

# GS PRELIMS CUM MAINS 2020

**LIVE ONLINE**  
CLASSES ALSO AVAILABLE

Scan the QR CODE to download **VISION IAS** app

Approach is to build fundamental concepts and analytical ability in students to enable them to answer questions of Preliminary as well as Mains examination

- Includes comprehensive coverage of all the topics for all the four papers of GS mains , GS Prelims & Essay
- Access to LIVE as well as Recorded Classes on your personal student platform
- Includes All India GS Mains, GS Prelims, CSAT & Essay Test Series
- Our Comprehensive Current Affairs classes of PT 365 and Mains 365 of year 2020 (Online Classes only)
- Includes comprehensive, relevant & updated study material

**ONLINE Students**

NOTE - Students can watch LIVE video classes of our COURSE on their ONLINE PLATFORM at their homes. The students can ask their doubts and subject queries during the class through LIVE Chat Option. They can also note down their doubts & questions and convey to our classroom mentor at Delhi center and we will respond to the queries through phone/mail.

Post processed videos are uploaded on student's online platform within 24-48 hours of the live class.

|                        |                        |                       |                       |                |                  |                  |
|------------------------|------------------------|-----------------------|-----------------------|----------------|------------------|------------------|
| <b>DELHI</b>           |                        | <b>LUCKNOW</b>        | <b>PUNE</b>           | <b>JAIPUR</b>  | <b>AHMEDABAD</b> | <b>HYDERABAD</b> |
| Regular Batch          | Weekend Batch          |                       |                       |                |                  |                  |
| <b>11 July</b><br>6 PM | <b>25 July</b><br>9 AM | <b>23 Aug</b><br>2 PM | <b>6 July</b><br>9 AM | <b>13 Aug</b>  | <b>18 July</b>   | <b>12 Aug</b>    |
|                        |                        |                       |                       | <b>25 July</b> | <b>29 July</b>   |                  |

# CHAPTER 3: NOURISHING DWARFS TO BECOME GIANTS: REORIENTING POLICIES FOR MSME GROWTH

## Theme

This chapter studies the **role of MSMEs in job creation and growth** in India economy and whether the previous policies of the Government have been conducive for the growth of MSMEs. It focuses on creating an ecosystem where MSMEs are incentivized and enabled to grow into large entities so that they can unlock their potential in creating jobs.

## Introduction

- According to the Survey, about 55-60 lakh jobs will have to be created annually over the next decade. To achieve this, it is essential that the potential of MSMEs is harnessed by making suitable changes.
- Over the last seven decades, the policies of the government have stifled the growth of MSMEs in the economy and there is domination of Dwarfs in Indian economy, which has impacted their job creation and productivity levels.
- If these MSMEs are unshackled so as to make them grow, they will not only create greater profits for their promoters but also contribute to job creation and productivity in the economy.

### Defining the different firms

- The firms employing less than 100 workers are categorized as **small firms** and firms employing 100 or more workers as **large firms**.
- **Dwarf firms** correspond to those small firms, which employ **less than 100 employees, despite being in existence for more than 10 years**.
- **Young firms** refer to firms younger than 10 years.

## The Bane of Dwarfism and its impact on Jobs and Productivity

- **Domination of Dwarfs in number-**
  - While **dwarfs** account for **half of all the firms** in organized manufacturing by number, their share in **employment** is 14.1 % only and share in **Net Value Added (NVA)** is 7.6 % only. On the other hand-
    - ✓ The **large firms** account for only **5.5 % of firms by number** but contribute **21.2 %** of the employment and **37.2 %** of the NVA.
    - ✓ The **large, but old, firms** (firms that have more than 100 employees and are more than 10 years old) account for only **10.2 % of firms by number** but contribute **half of the employment** and the NVA.
  - Hence, the firms that are **able to grow over time to become large** are the biggest contributors to employment and productivity in the economy. In contrast, dwarfs that **remain small despite becoming older** remain the lowest contributors to employment and productivity in the economy.
  - **Small firms**, with 85% proportion in organized manufacturing, accounted for only 23% of employment and 11.5% of Net Value Added in organized manufacturing.
    - ✓ This dispels the common notion that **small firms generate the most employment**. Small firms may generate a higher number of new jobs but they destroy as many jobs as well. Small firms find it difficult to sustain the jobs they create whereas large firms create permanent jobs in large numbers. Thus, the small firms tend to contribute lower levels of net job creation.
- **Effect of Size compared to Effect of age**
  - The common notion of small firms generating the most employment comes from the fact that effect of size mixes up with the effect of age.
  - Small firms consist of both old and young firms (infant and dwarfs), and out of these it is the young firms that disproportionately account for share of employment and productivity.
- **Cross-Sectional Comparison**
  - The survey compares the growth of employment and productivity with firm age in India with other countries-

- ✓ **Employment-** An average 40- year old firm in the U.S. generates **5 times** as much more employment than the average 40-year old Indian firm.
- ✓ **Productivity-** An average 40- year old firm in the U.S. is **2.5 times** more productive than the average 40-year old Indian firm.
- Thus, such comparison highlights that both employment creation and productivity do not grow adequately as firms grow older in India.

### The Role of Policy in fostering Dwarfism

- Indian policies have created a **“perverse” incentive** for firms to remain small. If the firms grow beyond the thresholds that these policies employ, then they will be unable to obtain the said benefits. Therefore, rather than grow the firm beyond the said threshold, entrepreneurs find it optimal to **start a new firm to continue availing these benefits.**
- But these small firms are not able to enjoy the benefits, which the large firms get from economy of scale and therefore **remain unproductive.** The lack of productivity and growth inhibits the ability of the dwarfs to create jobs.
- This phenomena can be seen as-
  - **Impact of Labour Regulation-** India has a plethora of labour laws, regulations and rules, both at the centre and the state levels. E.g. the **Industrial Disputes Act (IDA), 1947** mandates firms with more than 100 employees, to get permission from the Government before retrenchment of employees.
    - ✓ Given the transaction costs inherent in complying with such regulations, naturally a large majority of firms would prefer to be below the threshold of 100 employees and remain small.
    - ✓ The survey studies the reforms done by states. Based on it, it is highlighted that the **flexible states** (which have worked on labour reforms) have a faster pace of growth of the number of workers, capital and productivity when compared to the **Inflexible States.** Furthermore, these parameters are either deteriorating or growing at a slower pace in the Inflexible states when compared to the Flexible states.
    - ✓ The survey also studies the impact of deregulation of labour laws in Rajasthan (1<sup>st</sup> state to do so) to justify the change labour regulations for rest of the country.
  - **Impact of Small Scale Reservation**
    - ✓ The policies targeted at the small firms include the Priority Sector Lending, incentives/exemptions in purchase preference, price preference, marketing assistance till they reach an investment upper limit irrespective of their age.
    - ✓ **The Small Scale Industries (SSI) reservation policy, 1967** was introduced to promote employment growth and income re-distribution. However, it ultimately limited the incumbent firms that intended to grow before de-reservation.
    - ✓ **It was also observed that when benefits reserved for small firms are eliminated, younger and larger entrants create the most jobs while older and smaller incumbents destroy the maximum jobs.**
    - ✓ **Overall, size dependent policies** like SSI reservation have resulted in substantial misallocation of resources.

#### Impact of labour reforms in Rajasthan (2014)

Rajasthan undertook various amendments in Industrial Disputes Act 1947, Factories Act 1948 among others. The survey studies the effect of these changes as-

- The number of **large firms** (>100 employees) increased significantly compared to other states in India.
- The Compounded Annual Growth Rate (**CAGR**) of Rajasthan also increased significantly.

#### Misallocation of resources due to SSI Reservation

- SSI policies substantially lower the average capital to labour ratio when compared to the efficient level.
- Due to lower capital accumulation, the overall demand for labour and the market wage rate are much lower due to SSI policies than the efficient level.
- SSI policies result in inefficient allocation of managerial talent, which in turn affects productivity.
- The inefficient allocation of resources results in price of manufactured products in restricted economy being too high, which then renders these products uncompetitive in a global economy.

## Way Forward

Government policies must focus on enabling MSMEs to grow by unshackling them. The survey prescribes following policy options, which can be taken for the same-

- **Incentivizing 'infant' firms rather than 'small' firms:** With the appropriate grandfathering of existing incentives, they need to be shifted away from dwarfs to infants. Using the platform of Aadhaar, the age-based policies can be implemented to ensure removal of the perverse incentives due to which small firms do not grow.
- **Re-orienting Priority Sector Lending (PSL):** Currently, certain targets have been prescribed for banks for lending to the MSME sector that exacerbates perverse incentives to firms to remain small. Thus, it is necessary to **prioritize 'start ups' and 'infants' in high employment elastic sectors.** This would enhance direct credit flow to sectors that can create the most jobs in the economy.
- **Sunset Clause for Incentives:** With appropriate grandfathering, every incentive for fostering growth should have a 'sunset' clause like for a period of five to seven years after which the firm should be able to sustain itself. The policy focus would thereby remain on infant firms.
- **Focus on High Employment Elastic Sectors:** to step up the impact of economy growth on employment. The survey has listed some of such sectors like the manufacture of rubber and plastic products, electronic and optical products, transport equipment, machinery, basic metals and fabricated metal products, chemicals and chemical products, textiles and leather & leather products.
- **Focus on Service Sectors with high Spillover Effects-** such developing key tourist centers which will have ripple effects on job creation in areas such as tour and safari guides, hotels, catering and housekeeping staff, shops at tourist spots etc. The survey recommends identifying such tourism spots in each state and boosting the connectivity to these spots.

**REGISTRATION OPENING: 25<sup>TH</sup> JULY**

# ABHYAAS

## MAINS 2019

### ALL INDIA GS MAINS

### MOCK TEST (OFFLINE)

| PAPER | GS-I & GS-II | GS-III & GS-IV |
|-------|--------------|----------------|
| DATE  | 17 AUGUST    | 18 AUGUST      |

- All India Percentile
- Comprehensive Evaluation, Feedback & Corrective Measures
- Available In **ENGLISH / हिन्दी**

**30 CITIES**

Register @ [www.visionias.in/abhyaas](http://www.visionias.in/abhyaas)

AHMEDABAD | BHOPAL | BHUBANESWAR | BENGALURU | CHANDIGARH | CHENNAI | DEHRADUN | DELHI | GR. NOIDA | GHAZIABAD | GUWAHATI | HYDERABAD | INDORE | JAMMU | JAIPUR | JODHPUR | KANPUR | KOCHI | KOLKATA | LUCKNOW | MUMBAI | PATNA | PRAYAGRAJ | PUNE | RAIPUR | RANCHI | SHIMLA | THIRUVANANTHAPURAM | VARANASI | VISAKHAPATNAM

# CHAPTER 4: DATA "OF THE PEOPLE, BY THE PEOPLE, FOR THE PEOPLE"

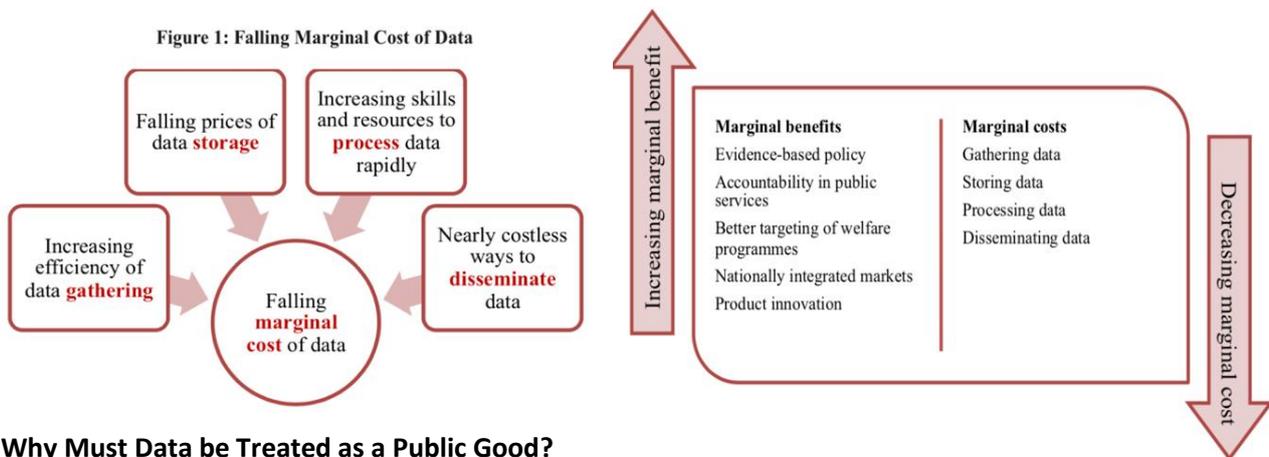
## Theme

This chapter explains how information explosion has brought about a change in marginal cost and benefit of data. Further it explains why and how this data can be treated as a public good? It discusses the role of private sector and government both for optimally using this data for social sectors. Finally, it concludes with applications of this data for various stakeholders i.e. Government, people and private sector.

## The Economics of Data and Social Welfare

In the recent times, people have increasingly started using digital services that is simultaneously leaving footprints, which is creating data at unprecedented scale. Concurrent with this -

- **marginal cost of data** has declined exponentially
- **marginal benefit to society** of using this data is increasing



## Why Must Data be Treated as a Public Good?

- Given the above situation, the **optimal quantum of data** that society should consume is higher than before. However, there has been only a partial increase in efforts to harness and use data.
- **Though private sector has been playing important role in harnessing and using the data, social benefits of data remains underutilized –**
  - Social welfare is not a benefit that accrues to the private firm. Therefore, the optimal amount of data that the private firm would gather and disseminate falls short of the social optimum.
  - Data also comes in **many forms** like **Anonymized data, public data** which offer **different benefits. There are areas where private investment in data remains inadequate, for example social sectors like education and health. Due to this, market for data in these sectors has so far not developed.**
- Therefore, government intervention is required to ensure that the socially optimum amount of data is harvested and used. It can intervene either by providing the data itself or correcting the incentive structure faced by the private sector, depending on the nature and sensitivity of data
  - At the same time while creating this data as public good, data privacy should also be ensured.

### Different forms of data

- **Anonymized data:** Data that is not linked to a specific individual but is still available at an individual level of granularity. This data is **critical in some areas** such as **medical research**.
- **Public Data:** Data neither linked to an individual, nor at an individual level of granularity, such as the census.

### Characteristics of data as public goods

- It is **non-rivalrous**, i.e., consumption by one individual does not reduce the quantum available for others.
- Data can be made **excludable**, i.e., it is possible to exclude people from accessing data, as many database firms do by erecting pay walls.

### Characteristics that data must possess for the synergistic benefits to accrue:

- **Combines Disparate Datasets maintained by different agencies:** useful in obtaining the necessary richness required to design and implement welfare policies.

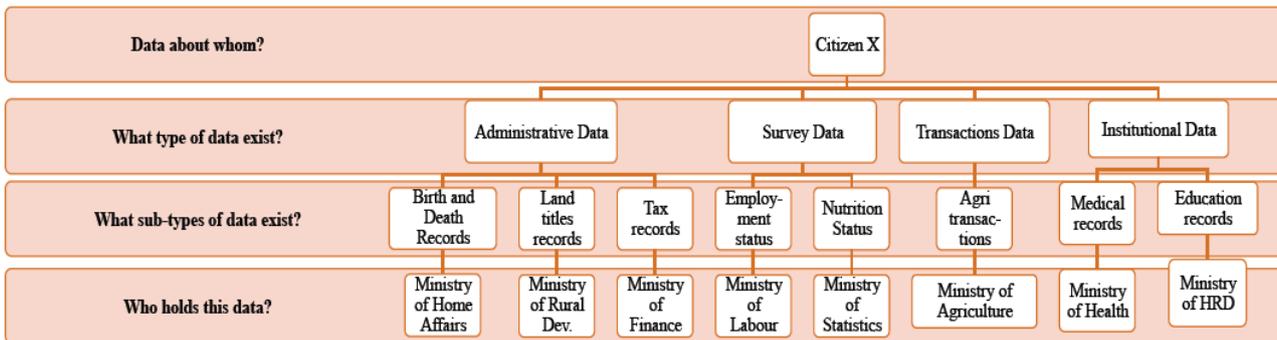
- **Covers A Critical Mass Of Individuals/ Firms:** so that comparisons and correlations can be assessed among individuals/firms to generate useful policy insights.
- **Spans A Large Time-Series:** to undertake before-after evaluations to assess the effectiveness of policies.

**Case Study - Open Government Data Platform – Using data as a public good**

- It allows citizens to access a range of government data in machine-readable form in one place.
- Throwing open government data to the public multiplies the number of people analysing and deriving insights from data. Consequently, **the usability of data itself increases.**

**Building the System**

The Government of India collects four distinct sets of data about people – **administrative, survey, institutional and transactions data.**



There are broadly two issues with this –

- While the first two databases are comprehensive and robustly maintained, the latter two are in a **fledgling state.**
- Data collection is **highly decentralised** as different ministries collect this data separately. Therefore, each ministry only has a small piece of the jigsaw puzzle that is the individual/firm. The lack of a common identifier makes it difficult to consolidate information.
- Therefore, there is **need to interlink these separate datasets** to use it in more efficient way.
- The efficacy of such an integrated system relies on **three critical features-**
  - While any ministry should be able to view the complete database, a given ministry can manipulate only those data fields for which it is responsible.
  - Updating of data should happen in real time and in such a way that one ministry’s engagement with the database does not affect other ministries’ access.
  - Database should be secure with absolutely no room for tampering.
- **Further, such a prospect of empowering the government with such comprehensive information about every citizen is not a matter of concern –**
  - The proposal envisioned here does not gather any new information; rather, it seeks to utilize the data subject to user consent and appropriate privacy and fairness related constraints.
  - The choice to share the individually linked data will always be with the citizen under the **Data Access Fiduciary Architecture.**

**Case Study - Integrating data sets – Best Practices**

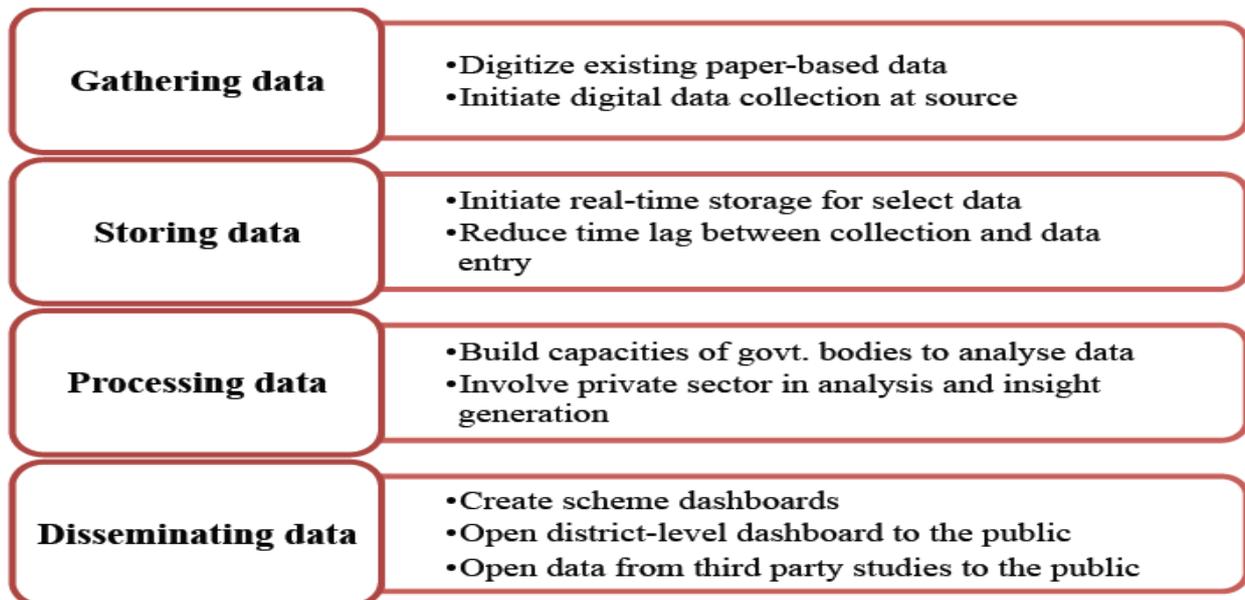
- Global examples – Transport for London (TfL), Data.gov platform of U.S. Government
- Indian examples –
  - **Samagra Vedika Initiative of Telengana** - links around twenty-five existing government datasets using a common identifier – the name and address of an individual.
  - **Local Government Directory** (application developed by Ministry of Panchayati Raj) - the platform maps each land region entity to a local Government body (like villages with their respective gram panchayats) and assigns location codes compliant with Census 2011.

**Data Access Fiduciary Architecture: model which puts user consent in the centre of the government’s initiative to make Data a Public Good.**

- Each department of the government is responsible for making available the data they hold as a data provider.
- These departments must take care to appropriately treat private data and public data with the standards they require.
- This data is then made available through a Data Access Fiduciary to the Data Requestors.
- Data Requestors may be public or private institutions but can only access the data if they have appropriate user consent.
- The Data Access Fiduciary themselves have no visibility on the data due to end-to-end encryption.

### What needs to be done transform India’s Data Infrastructure?

Harnessing data consists of four steps – gathering, storing, processing and disseminating data, each of which offers room for improvement in India.



### Applications

- **Governments:** They can improve targeting in welfare schemes and subsidies by reducing both inclusion and exclusion errors hence improving public service delivery.
- **Private sector firms:** Data may be sold to corporate sector which may in turn use these to discover untapped markets or innovate new products. This also generates revenues for the government.
- **Citizens:** They are the largest group of beneficiaries of the proposed data revolution. For example initiatives like DigiLocker, Non-Banking Financial Company-Account Aggregator (NBFC-AA). They enable citizens to demand and access their data in a machine-readable format, so that it can be used by them meaningfully.

### Conclusion

The principle is that most data are generated by the people, of the people and should be used for the people. Enabling the sharing of information across datasets would improve the delivery of social welfare, empower people to make better decisions, and democratize an important public good.

# CHAPTER 5: ENDING MATSYANYAYA: HOW TO RAMP UP CAPACITY IN THE LOWER JUDICIARY

## Theme

This chapter evaluate performance of judiciary on parameters such as disposal time, pendency time, etc. It further analyses the requirement of additional judges and efficiency gains across the various levels of courts to achieve 100 % case clearance rate as well as to eliminate the stock of pendency in the next five years. It views Rule of Law (*Dandaniti*) as the key to prosperity, and a bulwark against *Matsyanyaya* (i.e. law of the fish/jungle).

## Introduction

- The Indian judicial system has over 3.53 crore pending cases (Supreme Court- 0.16%, High Courts-12.30% and **Subordinate Courts-87.54%**)
- In spite of a number of actions like introducing the Insolvency and Bankruptcy Code and the adoption of the Goods and Services Tax, economic activity is being affected by the long shadow of delays and pendency across the legal landscape.
- **Contract enforcement** remains the single biggest constraint to improve our Ease of Doing Business (EODB) ranking.

## Scenario of Indian Judicial System

| Pendency   | Disposal   | Case Clearance Rate  |
|--|--|--|
| <ul style="list-style-type: none"> <li>• <b>Number-wise - Civil and Criminal cases account for 28.38 % and 71.62 % respectively of total pendency in D&amp;S courts.</b></li> <li>• <b>Age-wise - Both civil and criminal cases in District and Subordinate courts (D&amp;S courts) is more or less the same. More than 64 % of all cases are pending for more than one year.</b></li> <li>• There is <b>huge inter-state variation in average pendency of cases</b> in D&amp;S courts. Worst performing states (albeit not always) are also the poorest.</li> </ul> | <ul style="list-style-type: none"> <li>• <b>74.7 per cent of the civil cases and 86.5 per cent of the criminal cases are disposed within three years.</b></li> <li>• Here again, there is <b>huge inter-state variation in disposal of cases</b> in D&amp;S courts. Worst performing states (albeit not always) are also the poorest.</li> <li>• The average disposal time for civil and criminal cases in <b>Indian D&amp;S courts in 2018 was 4.4 fold and 6 fold higher respectively when compared with the average of Council of Europe members (2016).</b></li> </ul> | <ul style="list-style-type: none"> <li>• CCR in D&amp;S courts had increased from 86.1 per cent in 2015 to 90.5 per cent in 2017, but then <b>declined to 88.7 per cent in 2018.</b></li> <li>• <b>Due to CCR below 100%</b>, cases are getting accumulated and hence <b>increasing pendency.</b></li> </ul> |

| Case Clearance Rate (CCR)   |
|---|
| <ul style="list-style-type: none"> <li>• It is <b>the ratio of the number of cases disposed of in a given year to the number of cases instituted in that year, expressed as a percentage.</b></li> <li>• It is mainly used to <b>understand the efficiency of the system</b> in proportion to the inflow of cases.</li> </ul> |

## How can the legal logjam be cleared?

- For making judiciary more efficient, two issues are needed to be addressed -
  - Firstly, **100 % clearance rate must be achieved** so that there is zero accumulation to the existing pendency.
  - Secondly, **the backlog of cases** already present in the system **must be removed.**
- Assuming that **productivity is constant and disposal rate can be increased**, the survey estimates additional Judges required (at current efficiency) to solve the above two issues:

| No. of Additional Judges required       | Present Conditions  | Additional Judges required in a year | Additional Judges required in 5 year |
|---|---------------------|--------------------------------------|--------------------------------------|
| <b>District &amp; subordinate court</b> | Clearance Rate: 89% | 2279                                 | 8152                                 |
| <b>High court</b>                       | Clearance Rate: 88% | 93                                   | 361                                  |
| <b>Supreme court</b>                    | Clearance Rate: 98% | 1                                    | 8                                    |

## How should the Additional Judges be allocated?

This will help understand which case types require additional judges.

- **Case types:** Criminal cases backlog is about 2.5 fold higher than civil cases and also have lower CCR. This implies that the additional judges need to specialize in these case types so as to speed up the disposal of such cases.
- **Life-cycle Analysis:** This can be used to identify causes of delay, whether they are procedural inefficiencies or shortages of human and physical resources. For instance, the data from eCourts shows that most of the time is spent in the 'LCR/R and P' (Lower Courts Records – Records and Proceedings) stage. The process for both civil and criminal cases can be significantly sped up by **targeting the delay in the specific stages in cases**.
- **State-wise CCR:** There is a great amount of variation (above 100 per cent CCR in Gujarat and 55.58 per cent in Bihar) in the extent to which the subordinate judiciary in each state is capable of dealing with the inflow of new cases. Hence, **certain states need to be given priority in the appointment of additional judges**

## Making Indian Courts more productive

Apart from filling vacancies, there is a large scope for improving the efficiency. Some of the suggestions for enhancing productivity in the judiciary are as follows-

- **Increase number of working days:** It has often been pointed out that Indian courts close down for significant periods due to vacations. Increasing the number of working days may improve productivity of the Supreme Court and in some High Courts, but is unlikely to significantly impact lower courts (Subordinate courts seem to work almost as many days as government offices).
- **Establishment of Indian Courts and Tribunal Services:** A major problem lies with the quality of the administration of the courts system, particularly back-end functions and processes. This is critical to reducing the process delays. In this context, it has been proposed to create a specialized service called Indian Courts and Tribunal Services (ICTS). Similar court management services exist in other countries, for instance USA, UK. The major roles to be played by ICTS would be -
  - provide administrative support functions needed by the judiciary
  - identify process inefficiencies and advise the judiciary on legal reforms
  - implement the process re-engineering.
- **Deployment of Technology:** One major effort in this direction is the **eCourts Mission Mode Project** that is being rolled out in phases by the Ministry of Law and Justice. This has allowed the creation of the **National Judicial Data Grid (NJDG)**. The system is already able to capture most cases, their status and progress. The digitalization of cases is now allowing stake-holders to keep track of individual cases and their evolving status.

## Conclusion

A culture of Rule of Law must pervade as all of the governance and cannot be improved in silos. Given the potential economic and social multipliers of a well-functioning legal system, reforming it should be given top priority by policy-makers.

# CHAPTER 6: HOW DOES POLICY UNCERTAINTY AFFECT INVESTMENT?

## Theme

This chapter keeps its attention on the **economic policy uncertainty** and its impact on business and investment.

It talks about the need of certainty in economic policies, which have been missing in India and the world in the last decade. However, it has been **decoupled in India** in the recent past, which need to be continued in future to create favourable environment for investors.

## Introduction

- The policymakers have to design policy in an inherent uncertain world. Among various sources of economic uncertainty, economic policy uncertainty matters significantly because this uncertainty refers to one that policymakers can control and thereby influence economic activity.
- When policy making is consistent with the broad vision and the strategic blueprint as laid out in this Survey, the **investors can relate to the logic behind the policy** and therefore not get disturbed by the policy changes.
- In contrast, if a broad blueprint is not laid out or policy changes go outside the blueprint, then such policy changes can create apprehensions in the minds of investors and thereby affect investment in the economy.

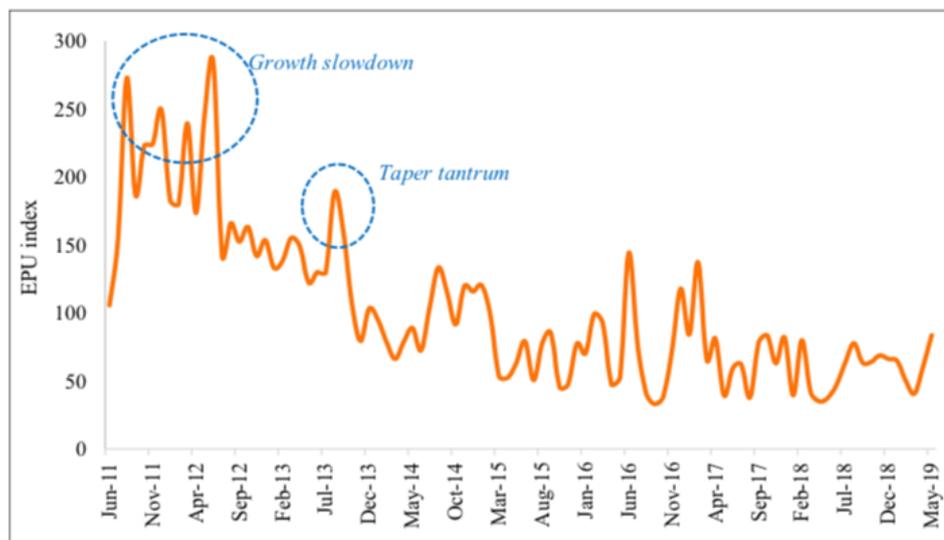
### Measuring Policy Uncertainty

- As uncertainty itself inherently cannot be quantified, economic policy uncertainty is difficult to quantify.
- However, advances in data analytics, in general, and text analytics, in particular, have made it possible to quantify uncertainty, in general, and economic policy uncertainty, in particular.
- An **Economic Policy Uncertainty (EPU) index** has been developed by three US-based economists—Scott Ross Baker, Nick Bloom and Steven J. Davis.
- It tracks the general state of the economy as it relates to businesses.
- It is created by quantifying newspaper coverage of policy-related economic uncertainty.

## Economic Policy Uncertainty in India

- Economic Policy Uncertainty in India, when measured using EPU index was the **highest in 2011-12** coinciding with the years of **policy paralysis**. As can be seen from the figure, it has secularly declined from July 2012 onwards. It shows few peaks of high uncertainty in –
  - **2011 and 2012-** reflecting the **policy paralysis** along with high twin deficits, high inflation which led increasing macroeconomic vulnerability
  - **2013-** due to episode of **‘taper tantrum’** of US Federal Agency, leading to volatile capital flows, depreciation of rupee vis-à-vis US dollar.

Figure 1: Economic Policy Uncertainty in India



In recent times, while the economic policy uncertainty has been increasing across the world, including US, UK and China, India's economic policy uncertainty has been falling. This divergence has sharpened in 2018 as global uncertainty index increased from 112 to 341 in the same year, whereas that of India remained below 100.

- The low economic policy uncertainty index for India in last one-year points towards resilience of the economy even in times of global trade uncertainty (rising trade tensions between US and China, uncertainty about outcome of BREXIT, slower world growth).

### Relationship of Economic Policy Uncertainty with Investment in India

- **Two key features** of the decision to invest highlight the key role of uncertainty. First, investment represents a forward- looking activity. Second, it is irreversible. Thus the, **required return** on investment **correlates positively** with the **systematic risk** underlying the investment. An increase in uncertainty in the economy increases this systematic risk and thereby increases the rate of return required to justify the investment.
- As a result, projects that generate a lower return than their expectation become unviable when uncertainty increases in the economy. Also, as fixed investment is irreversible, uncertainty exacerbates risk- aversion, increases the premium demanded for assuming risk, and eventually dampens investment.
- The relationship of uncertainty in economic policy with investment may be through two channels.
  - First is the **direct relationship** of economic policy uncertainty with investment growth
  - Second is the relationship of EPU with other variables, which **in turn affect investment**.
- Following the **global crisis**, the **fixed investment rate** fell from **37%** in 2007-08 to **27%** in the following ten years. It has recovered to **28%** recently. The continued resolution of the twin balance sheet problem following implementation of **Insolvency and Bankruptcy Code 2016** and recapitalization of banks helped to promote investment.
  - Focus on improvement in the business climate via measures to improve ease of doing business, clarity in the policy for FDI liberalization may have also helped in this regard by reducing economic policy uncertainty.
- Consistent with this thesis, the analysis indicated that an increase in economic policy uncertainty dampens investment growth in India for about five quarters. One standard deviation increase in uncertainty leads to about one percentage point decline in investment growth rate. Thus, **economic policy uncertainty materially impacts the investment climate** in the country.

#### Various factors and their relation to investment

- **Inflation-** Rise in prices are expected to trigger greater investments as businesses find it profitable to do so as long as consumption demand is sufficiently strong to overcome the impact of inflation.
- **Foreign investment-** FDI and FII flows are expected to be negatively related to the volatility of exchange rate.
- **Capacity Utilization-** It is expected to have positive relationship with investment growth, as excess unutilized capacity in the previous quarter may lower the need for new investment in the current quarter.

### Policy Recommendations

- **Predictable Policy Actions-** by the policymakers, which provide forward guidance on the stance of policy, maintain broad consistency in the actual policy with the forward guidance and reduce ambiguity in policy implementation. E.g. as done by the Monetary Policy Committee and Fiscal Responsibility and Management Act by setting defined limits which guide the businesses.
- **Measuring Uncertainty-** as '**what gets measures gets acted upon**', so the economic policy uncertainty **index** must be tracked by the policymakers at the highest-level monitor on a quarterly basis. Government must encourage construction of economic policy uncertainty **sub-indices** to capture economic policy uncertainty stemming from fiscal policy.
- **Ensuring Quality Assurance of processes in policy making-** quality assurance of processes in policy making must be implemented in Government via **international quality certifications**, as done in private sector.

# CHAPTER 7: INDIA'S DEMOGRAPHY AT 2040: PLANNING PUBLIC GOOD PROVISION FOR THE 21ST CENTURY

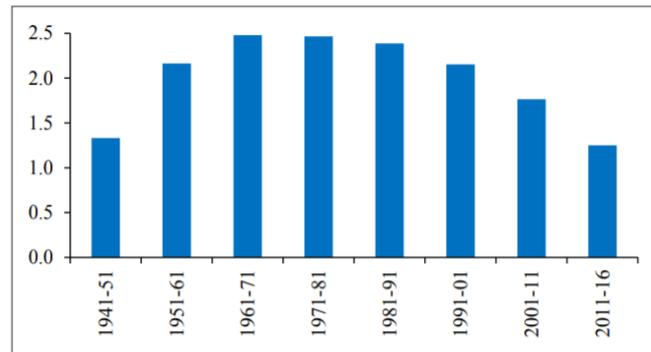
## Theme

The chapter discusses the recent demographic trends such as slowing growth rate of population, changing age composition and their implications e.g. on school education, healthcare and labour force, in the near future. The chapter stresses on the need to reorient government policies in accordance with the projected demographic shift.

## Recent Demographic Trends

- Population growth in India has been **slowing** in recent decades from an annual growth rate of 2.5% during 1971-81 to an estimated 1.3% as of 2011-16.
- **All major states have witnessed a marked deceleration** in population growth during this period; the slowdown in states with historically high population growth such as Bihar, Uttar Pradesh, Rajasthan and Haryana is particularly noteworthy. It is below 1 per cent in certain states.
- A key driver of this trend has been the **steady decline in India's total fertility rate (TFR)** since the mid-1980s which has halved from 4.5 in 1984 to **2.3 as of 2016**.
- It has reached this TFR at a relatively low per capita when compared to the experience of major developed economies.
- This also suggests that India has entered the so-called demographic dividend phase - with population growth set to slow markedly in the next two decades along with a significant increase in the share of working-age population.
- **TFR is now below replacement level fertility in 13 out of the 22 major states.**
- The southern states, Himachal Pradesh, Punjab, West Bengal and Maharashtra are already quite advanced in the demographic transition, with
  - TFR already well below replacement level fertility;
  - population growth mainly due to momentum;
  - more than 10% of the population over the age of 59; and
  - at most one-third of the population below the age of 20.

Figure 1: Annual Population Growth Rate in India (per cent)



Source: Census 2011, International Institute for Population Sciences (IIPS) estimates.

**Total fertility rate (TFR)** refers to the total number of children born or likely to be born to a woman of child-bearing age in her lifetime.

- TFR of 2.1 children per woman is called the replacement level fertility, which is the average number of children a woman would need to have in order for the population to replace itself.

## Projecting National and State Level Population

Population and its age structure are projected at the national and state level up to 2041 with a focus on 22 major states, which account for 98.4 per cent of India's population as per Census 2011.

- **Declining Fertility Rates:**
  - Projected values for 2021-41 suggest that TFR at the national level will continue to decline rapidly and **will lie below replacement level fertility (2.1) at 1.8 as early as 2021** and would stabilize around 1.7 thereafter. **By 2031, all states would see below replacement level fertility.**
  - **Reasons for declining fertility:** driven by rising female education, postponement of marriage, access to family planning methods, and continued decline in infant mortality.
    - ✓ While family planning programs have played a major role in reducing fertility in India in the past decades, these socio-economic changes have manifested over the last 10-15 years.

**Effective Replacement Level Fertility**

- The average value of **sex ratio at birth** is around 1.05, i.e. 105 boys born per every 100 girls. Thus, **there are more men than women in the population when compared to the natural level**. This implies that the required replacement level fertility at the national and state level is higher than the usual benchmark of 2.1, i.e., due to the skewed sex ratio, a woman would have to give birth to more than 2.1 children in order for the population to replace itself.
- The **effective replacement level fertility considering the skewed sex ratio could be**
  - around 2.15-2.2 for India with a sex ratio of 1.11;
  - around 2.2-2.25 for states such as Haryana, Uttarakhand and Gujarat with the sex ratio as high as 1.15- 1.20; and
  - between 2.1-2.2 for the remaining states with the sex ratio around 1.07-1.14.
- The **current TFR in 14 out of the 22 major states is already below the effective replacement level fertility**.

• **Population Growth Trajectory:**

- With fall in TFR, positive population growth in the next two decades will be due to **population momentum** and the continued **rise in life expectancy**.
- India’s population growth will **continue to slow rapidly over the next two decades**, growing less than 1% during 2021- 31 and under 0.5% during 2031-41.
- **States ahead in the demographic transition** will see a continued deceleration in population growth and **reach near-zero growth rates by 2031-41. Tamil Nadu’s population growth will start declining during 2031-41** unless offset by inward migration.

• **Changing Age Composition:**

- The share of India’s young, i.e. **0-19 years, population** has already started to decline and is projected to **drop from as high as 41% in 2011 to 25% by 2041**.
- the share of **elderly, 60 years and above**, population will continue to rise steadily, **nearly doubling** from 8.6% in 2011 to 16% by 2041.
- **India’s demographic dividend will peak around 2041**, when the **share of working-age, i.e. 20-59 years, population is expected to hit 59%**.

• **Implications for Working-Age Population:**

- India’s **working-age population will continue to increase** through 2041.
- As per the NSSO Periodic Labour Force Survey 2017-18, **India’s labour force participation rate for the age-group 15-59 years is around 53%** (80 per cent for males, 25 per cent for females). Depending on the trajectory, **additional jobs** will need to be created to keep pace with the projected annual increase in working-age population of 9.7 million during 2021-31 and 4.2 million during 2031-41.
- The **size of working-age population will start to decline in 11 out of the 22 major states** during 2031-41, including in the southern states, Punjab, Maharashtra, West Bengal and Himachal Pradesh.
- The states with rising working-age population could meet the labour deficit in many of the ageing states. Current migration trends broadly follow this pattern.

**Policy Implications of Ageing**

| Components             | Projection  | Implications/Challenges   | Solution/Way Forward   |
|------------------------|---|---|--|
| Elementary Schools     | The number of school-going children in India will decline by 18.4% between 2021 and 2041.   | Significant rise in number of schools per capita with low enrolment (less than 50 students)   | Consolidate/merge elementary schools (located within 1-3 kms radius of each other) in order to keep them viable rather than building new ones.   |
| Health Care Facilities | <ul style="list-style-type: none"> <li>• Absolute population to rise to around 1510.2 million by 2041</li> <li>• Ageing of population (from 8.6% in 2011 to 15.9% in 2041)</li> </ul> | <ul style="list-style-type: none"> <li>• <b>Per capita availability of hospital beds-</b> States with high population growth are also the ones with the lowest per capita availability of hospital beds</li> <li>• Access to Geriatric services</li> <li>• Paucity of specific data, especially on private hospitals</li> </ul> | <ul style="list-style-type: none"> <li>• <b>Expanding medical facilities</b> in high population growth states</li> <li>• For states in the advanced stage of demographic transition- <b>greater provision of geriatric care</b></li> <li>• <b>Better data collection and planning</b> for the provision of medical facilities</li> </ul> |

|                |   |  |   |
|----------------|---|--|---|
| Retirement Age | Healthy life expectancy at the age of 60 now stands at 12.9 years (12.5 years for males; 13.3 years for females)-<br><b>life expectancy for both males and females is likely to continue rising</b> | Retiring workforce with increasing pressure on pension funding | <b>Increasing the retirement age for both men and women.</b> This change must be signalled well in advance – perhaps a decade before the anticipated shift – so that the workforce can be prepared for it. This will also help <b>plan in advance for pensions and other retirement provisions.</b> |
|----------------|---|--|---|

**ENGLISH** | **25 July**  
Medium | **5 PM**

**हिन्दी** | **1 Aug**  
माध्यम | **5 PM**

**MAINS 365**  
**One year Current Affairs in 75 hours**

- Specific content targeted towards Mains exam
- Complete coverage of The Hindu, Indian Express, PIB, Economic Times, Yojana, Economic Survey, Budget, India Year Book, RSTV, etc
- Doubt clearing sessions and mentoring
- Support sessions by faculty on topics like test taking strategy and stress management.
- LIVE** and **ONLINE** recorded classes for anytime any where access by students.

Scan the QR CODE to download **VISION IAS** app

# CHAPTER 8: FROM SWACHH BHARAT TO SUNDAR BHARAT VIA SWASTH BHARAT: AN ANALYSIS OF THE SWACHH BHARAT MISSION

## Theme

This chapter aims to analyse the various facets of the Swachh Bharat Mission- Gramin- its successes, especially in terms of health and related cost, behavioural transition towards sanitation, driver of gender empowerment, and also in terms of physical progress and funds allocated. It suggests the way forwards to further strengthen the implementation of the Mission.

## Swachh Bharat Mission- Gramin (SBM)

- **SBM adopts a multi-faceted approach including:**
  - **Community participation:** Ensuring appropriate participation of the beneficiary/communities, financially or otherwise, in the setting up of the toilets to promote ownership and sustained use.
  - **Flexibility in Choice:** An illustrative list of technology options, with cost implications is provided to meet the user preferences and location specific needs.
  - **Capacity Building:** SBM augments the institutional capacity of districts to change behaviour at the grassroots level and strengthen the capacities of implementing agencies to measure the outcome.
  - **Instil Behaviour change:** It incentivises State-level institutions to implement activities for behavioural change among communities such as awareness generation, triggering mind-set changes, leading to community behaviour change and demand generation for sanitary facilities in houses, schools, anganwadis, places of community congregation and for solid and liquid waste management activities.
  - **Broad-based Engagement:** SBM set up the **Swachh Bharat Kosh** to encourage Corporate Social Responsibility and accept contributions from private organizations, individuals and philanthropists.
  - **Use of Technology such as social media and mobile apps** allows citizens to keep a check on the availability of toilets for every rural household in India. **Nearly 90% of all SBM toilets have already been geo-tagged.**
- **Financial Allocation to SBM:**
  - Under SBM, an **incentive of ₹12,000** is provided for construction of **Individual Household Latrines (IHHL)** to eligible beneficiaries in rural areas and covers for provision of water storage.
  - A **total of ₹51,314.3 crore has been allocated since 2014-15 for SBM**, out of which, 95.3% has been released.
  - **Majority of SBM interventions and their associated costs occur at community and household level.** Nearly 8% of the Centre's total contribution goes to social and behaviour change communication cost, while the remaining 92% is spent on incentivising household toilets and hand washing stations.
- **Progress Made:**
  - **Nearly 98.9% of India has been covered under SBM.** Since October 2014, **over 9.5 crore toilets** have been built all over the country (till 14.06.2019). The total number of household toilets constructed from 2014 till 2018 shows a rapid progress over the last few years starting from less than 50 lakh household toilets per year and reaching up to over 3 crore toilets per year.
  - A **major focus of SBM has been on making villages Open Defecation Free (ODF).** As on 29.05.2019, 5,61,014 villages (93.41%), 2,48,847 gram panchayats (96.20%), 6,091 blocks (88.60%) and 618 districts (88.41%) have been declared ODF.
  - **Comparison across states for ODF Status:** Goa has the lowest ODF coverage declared (5.84%) followed by Odisha (45.36%). Many have already achieved 100% ODF status.
  - **IHHL Coverage:** Most of the states have achieved the status of 100% IHHL coverage and only few states are yet to achieve their targets.
  - **Behavioural Change: National Annual Rural Sanitation Survey (NARSS) 2018-19** found that **96.5%** of the rural households that had access to a toilet, **used them.** The NARSS also **re-confirmed the ODF status** of 90.7% of villages.

- **Solid and Liquid Waste Management (SLWM):** It is another major component of SBM Mission. Central share expenditure under SLWM has consistently increased in the last four years.
  - ✓ Many states have undertaken various activities such as construction of waste collection centres, menstrual hygiene management activities, installation of bio-gas plants, etc.

### Analysis of SBM on Health issues

- A direct impact of improved sanitation should manifest on the health indicators. Diarrhoea, malaria, still births and low birth weight cases all saw reduction after the implementation of SBM.
  - **While sanitation has an important role** to play in reducing diarrhoea and malaria, **there may be other factors** like activities undertaken under Integrated Action Plan for Prevention and Control of Pneumonia and Diarrhoea that have also played an important role in reduction of malaria and diarrhoea.

### Impact of SBM- Few Independent Studies

- **The Sanitation Health Impact Assessment study** was conducted by Ministry of Drinking Water and Sanitation (MoDWS), to understand the impact of ODF status on the key child health and nutritional indicators in five states- Karnataka, Madhya Pradesh, Rajasthan, Uttar Pradesh and West Bengal.
  - Becoming ODF had a **positive impact** on the child health and nutrition.
- Another study, **“Swachh Bharat Mission – Preliminary estimations of potential health impacts from increased sanitation coverage”** was conducted by World Health Organization (WHO) to estimate health gains based on the latest available evidence linking sanitation and mortality from diarrhoeal disease.
  - Since the start of the SBM, mortality from unsafe sanitation is **declined** to about 50,000 deaths in 2017-2018.
- A **recent study conducted by UNICEF on behalf of MoDWS** assessed the economic impacts (benefits) of SBM.
  - On an average, **every household in an ODF village saved about ₹50,000 per year** on account of financial savings due to lower likelihood of disease.
  - **Financial savings from a household toilet** exceed the financial costs to the household by 1.7 times, on average and 2.4 times for poorest households.
- In terms of the **impact of SBM on the physical environment**, a recent **study by UNICEF**, in association with MoDWS indicates, **in terms of faecal contamination, ODF villages** were, on average **less likely** to have their groundwater sources, soil, food and household drinking water contaminated.

### Significance of SBM

- **Driver for eliminating the gender disparity** through the construction of gender-specific latrines in public areas such as schools, roads and parks. This **public movement** will have indirect positive impact on society by **increasing the enrolment ratio of girls** in schools and improving health standards.
- The Mission has brought **one of the largest behavioural changes** in its citizenry. The mission mirrors the **National Developmental priorities** by focusing on the gender equality and women empowerment.
- It is also **aligned with the 2030 global sustainable development agenda and SDGs** especially the **SDG 6.2** – “By 2030, achieve access to adequate and equitable sanitation and hygiene for all, and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations”.

### Way Forward

The dream of clean India can only be realized by addressing multiple facets - maintaining a **culture of swachhata** at public places beyond individual houses, cleaning water bodies, scientific waste management, dealing with plastic menace, controlling air pollution, etc.

- To sustain the momentum created and behavioural change, continuous actions would have to be taken such as motivation of **“agents of change”** at the ground level, impart **training to field agents**, appointment of **sanitation Ambassadors** to campaign and create awareness especially on health benefits, obtain **systematic feedback** from users. Attention must also be accorded to the **sewer construction and water availability**.

- SBM should focus on achieving **100% disposal of solid and liquid waste**. Currently, many states are not concentrating enough on this aspect. Scientific techniques for the safe and effective disposal of waste should be the next on the agenda for this mission.
- The **cleaning of rivers** should be an integral part of clean India, along with coordinated activities between Centre and States such as treatment of industrial effluence, drain bioremediation, river surface cleaning, rural sanitation, river front development, afforestation and biodiversity conservation etc.
- **Availability of financial resources intermixed with changing mind-sets** have to be ensured. Innovative financing mechanisms e.g. micro-financing, concessional loans, corporate social responsibility and crowd funding align with local government financing must be utilised. **Private Partnership and Corporate Social Responsibility** can ensure, in specific contexts, a smooth flow of funds.
- **A clean India should also lead to environment friendly green India**. SBM needs to incorporate environmental and water management issues for long term sustainability and improvements. Investment in the toilet and sanitation infrastructure in future, therefore, demands incorporation of principles of sustainability, circular economy, and adoption of eco-friendly sanitation technologies.

**फाउंडेशन कोर्स**  
**सामान्य अध्ययन**  
**प्रारंभिक एवं मुख्य परीक्षा 2020**

इनोवेटिव क्लासरूम प्रोग्राम के घटक

- प्रारंभिक परीक्षा, मुख्य परीक्षा और निबंध के लिए महत्वपूर्ण सभी टॉपिक का विस्तृत कवरेज
- मौलिक अवधारणाओं की समझ के विकास एवं विश्लेषणात्मक क्षमता निर्माण पर विशेष ध्यान
- एनीमेशन, पॉवर प्वाइंट, वीडियो जैसी तकनीकी सुविधाओं का प्रयोग
- अंतर - विषयक समझ विकसित करने का प्रयास
- योजनाबद्ध तैयारी हेतु करेंट ओरिएंटेड अप्रोच
- नियमित क्लास टेस्ट एवं व्यक्तिगत मूल्यांकन

- सीसैट कक्षाएं
- PT 365 कक्षाएं
- **MAINS 365** कक्षाएं
- PT टेस्ट सीरीज
- मुख्य परीक्षा टेस्ट सीरीज
- निबंध टेस्ट सीरीज
- सीसैट टेस्ट सीरीज
- निबंध लेखन - शैली की कक्षाएं
- करेंट अफेयर्स मैगजीन

लाइव ऑनलाइन कक्षाएं भी उपलब्ध

Scan the QR CODE to download **VISION IAS** app

**DELHI: 6 Aug**      **LUCKNOW: 25 July**      Batches also @ **JAIPUR | AHMEDABAD**

# CHAPTER 9: ENABLING INCLUSIVE GROWTH THROUGH AFFORDABLE, RELIABLE AND SUSTAINABLE ENERGY

## Theme

The chapter outlines the growth prospects of India through affordable, reliable and sustainable energy. On the front of affordable energy, it elaborates upon the need to tackle the poor access to energy and bridge the rural-urban divide. On the Reliable energy front, the Survey bats for coal-based power, however with continuously enhancing share of renewable energy. To ensure the sustainability of energy uses, the chapter focuses on the energy efficiency with a special focus on Electric Vehicles.

## Energy for Prosperity

- In the initial years of economic development, increase in per capita GDP requires a large increase in primary energy per capita.
- Despite accounting for 18% of world's population, India uses only around 6% of the world's primary energy. India has a per-capita energy consumption of only about one-third of the global average.
- India cannot become an upper-middle-income country without
  - **rapidly raising its share of the global energy consumption** commensurate with its share of the global population, and
  - **ensuring universal access** to adequate modern commercial energy at affordable prices.
- Keeping the above in mind India would have to-
  - Increase its per capita consumption by 2.5 times which will also enable it to enter the upper-middle income group.
  - Quadruple its per-capita energy consumption to reach a HDI of 0.8 (high human development).

## Access to Energy- Energy Poverty

- Access to energy is important not just in its own right but also due to its linkages with other social indicators. The **SDG No.7** on Affordable and Clean Energy is closely related to all other SDGs.
- Despite increasing share of LPG as cooking fuel, a large proportion of the population especially in **rural areas rely on non-commercial biomass** such as firewood and dung cakes for their cooking/heating needs, thereby **exacerbating health concerns** due to poor indoor air quality.
  - Around 81% of rural households and 59% of urban households in lowest five percentile classes of expenditure reported firewood & chips as their primary source of energy for cooking.
- This **indicates that the problem of energy poverty has been more pervasive than income poverty.**
- Government efforts for providing clean fuel-
  - **Pradhan Mantri Ujjwala Yojna** to safeguard the health of women and children by providing them with clean cooking fuel.
  - **Direct Benefit Transfer for LPG consumer (DBTL) scheme** namely, '**PAHAL**', to rationalize subsidies based on approach to cut subsidy leakages.

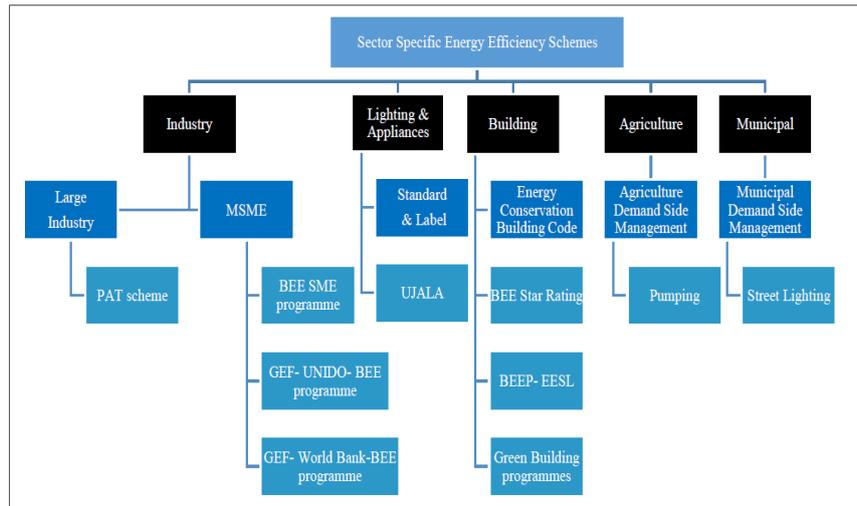
## Energy Efficiency

- Along with increasing its energy production and consumption, India also strives to ensure that it follows a growth path that delivers sustainable development.
- **Energy intensity of India's GDP has been declining** in the recent past, which is reflective of increases in the efficiency of energy use.
- The **institutional and legal framework** in the country for energy efficiency has been strengthened through the **Energy Conservation Act, 2001**, which created the **Bureau of Energy Efficiency (BEE)**. India has taken a number of steps for promoting energy efficiency. The overall size of the **energy efficiency market in India** is estimated to be US\$ 22.81 billion.
- **Impact of Energy Efficiency Programmes: Riding on the success of three major programmes- PAT, UJALA and Standard & Labelling**, the implementation of various energy efficiency programmes has

witnessed exceptional performance in terms of reducing energy consumption thereby leading to lower greenhouse gas (GHG) emissions and cost savings. This is manifested as

- Overall electricity savings is 7.21% of the net electricity consumption in 2017-18.
- Total thermal energy saved is 2.7% of the net thermal energy consumption and 2.0% of the net energy supply.

Figure 9: Sector Specific Energy Efficiency Schemes

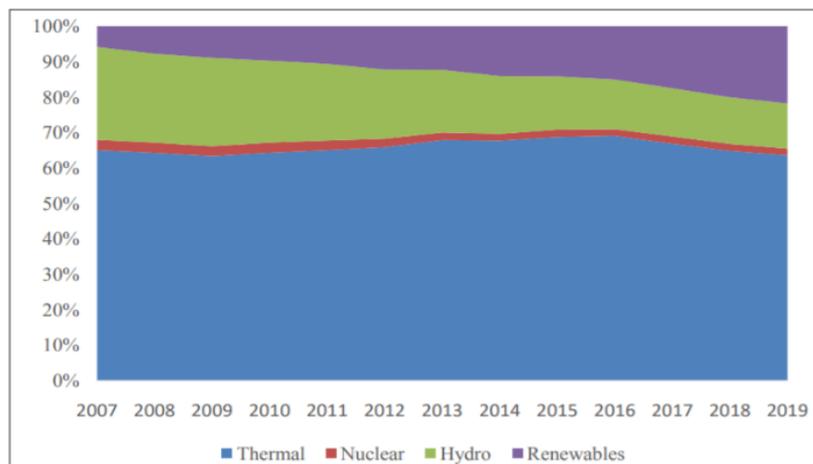


- **Energy Saving Potential of Various Sectors:** By 2031, India has a potential to save 10-15% of energy consumption depending upon the efforts and policy interventions (moderate to aggressive efforts). Industrial sector stands out with maximum energy saving potential.
- **Policy Suggestion: Prepare and plan new portfolio of strategies** which should include favourable regulatory structures, strengthened institutional framework, innovative financial structures for affordable financing, use of technology, and increased stakeholder engagement.

**Sustainability of Energy Generation**

- Despite shifting focus to non-fossil fuel sources for electricity generation, coal remains the largest source of electricity generation mix globally, with 38% market share in 2018.
- Almost 60 per cent of India's installed capacity is in thermal power out of which the main component is the coal based thermal power plants.

Figure 12: Share of various energy sources in total Installed capacity in India



**A case for coal-based Power plants**

While there has been tremendous increase in the renewable energy capacity, fossil fuels, especially coal, would continue to remain an important source of energy.

- A sudden abandonment of coal-based power plants without complete utilisation of their useful lifetimes may lead to **stranding of assets** that can have further adverse impact on the banking sector.
- Considering the **intermittency of renewable power supply**, unless sufficient technological breakthrough in energy storage happens in the near future, it is unlikely that thermal power can be easily replaced as the main source of energy.

**Way Forward**

Given the sustainable energy objectives of the country and the importance that coal based power plants entail

- there is a need for building capacity for cleaner and more **efficient coal technologies**.
- India must **generate greater output** from available energy resources and its resource endowments.
- A **comprehensive energy policy** should take into consideration the economies of both coal and renewables as they are interdependent. They are substitutes for each other as a source of energy but are complementary in keeping the flow to the grid stable as coal generation represents a stable source of power while renewable energy may be variable.

- **Potential of Renewable Energy:** Progressively declining costs, improved efficiency and reliability have made renewable energy an attractive option for meeting the energy needs in a sustainable manner.
  - India has been undertaking **one of the world's largest renewable energy expansion programmes**. The target is to achieve an installed capacity of renewable based power of 175 GW by the year 2022.
- **Potential for Hydro Power generation:** India has a **hydro potential of around 145320 MW**, out of which 45400 MW have been utilised. Hydro power is climate friendly compared to traditional sources of power, however, high tariffs have been a major obstacle.
- **Progress made so far-**

|  |              |                 |
|--|--------------|-----------------|
| Share of renewables in total generation (excluding hydro above 25 MW)  | 6% (2014-15) | 10% (2018-19)   |
| Total renewable power installed capacity (excluding hydro above 25 MW) | 35 GW (2014) | 78 GW (2019)    |
| solar power installed capacity   | 25 MW (2011) | 28.18 GW (2019) |

**Now globally India stands 4th in wind power, 5th in solar power and 5th in renewable power installed capacity.**

**Present Efforts for increasing share of renewable energy**

- Around 27 GW renewable power capacity is under installation and over 38 GW under bidding.
- Union Budget 2018-19 announced **zero import duty** on components used in making solar panels to give a boost to domestic solar panel manufacturers.
- **Green Energy Corridor project** continues to facilitate smooth integration of increasing share of renewables into the national grid. Eleven **Renewable Energy Management Centres** are already at different stages of installation.
- **Kisan Urja Suraksha Evam Utthaan Mahabhiyan (KUSUM) scheme** has been launched for providing financial and water security to farmers and for de-dieselization of the farm sector. The scheme envisages around 2.75 million solar pumps and, on a pilot basis, 1 GW decentralized solar power plants in uncultivable lands of farmers to enhance income of farmers.

For **Hydro Power Generation**, a **new Hydro Policy** has been approved which includes -

- recognising large hydropower projects as a renewable energy source.
- tariff rationalization measures
- increasing debt repayment period
- budgetary support for funding flood moderation component of hydropower projects on a case-to-case basis, and
- budgetary support for funding cost of enabling infrastructure i.e. roads and bridges on a case-to-case basis

**Electric Vehicles (EVs) in India**

- In India, **transport sector is the second largest contributor to CO2 emissions** after the industrial sector. Road transport accounts for around 90% of the total emissions in the transport sector in India. Further, increased vehicle ownership has also meant that demand for the fossil fuels has also increased.
  - Therefore, it is imperative that there be a shift of focus to alternative fuels to support our mobility in a sustainable manner.
- Government Initiatives in this regard –
  - **“National Electric Mobility Mission Plan 2020 (NEMMP)”** was conceived with an objective to achieve sales of 60-70 lakh units of total EVs by 2020.
  - **Faster Adoption and Manufacturing of Electric vehicles (FAME) scheme** was launched to fast-track the goals of NEMMP. In **FAME India Phase II**, launched from 1 April 2019, **emphasis is on electrification of public transportation**.
  - Several state governments like Kerala, Karnataka etc. have drafted EV policies to complement the national policies and address state-specific needs.
- **EVs statistics in India-**
  - Electric two wheelers have been the major part of EV sales.
  - Indian market share of electric cars is a meagre **0.06%** when compared to 2% in China and 39% in Norway.
  - **Uttar Pradesh** topped the list of the states with highest EV sales.
- **Challenges with and way forward for the faster adoption of EVs**
  - **Charging infrastructure:** In India, the limited availability of charging infrastructure seems to be a major impediment to increased adoption of EVs. This is primarily due to the **limited driving range**

of **batteries** in the EVs. It, therefore, becomes important that adequate charging stations are made available throughout the road networks.

- **Charging time:** Compared to conventional vehicles, **even fast chargers can take around half an hour to charge an electric car while slow chargers could take even 8 hours.** It is, therefore, an important policy issue to come up with universal charging standards for the country as a whole to enable increased investment in creation of such infrastructure.
- **Information dissemination on Charging infrastructure and** public chargers to the users of EVs through online maps and other means such as physical signage will encourage increased ease of adoption of EVs.
- **Battery Technology:** Since the **battery is the heart of any EV**, development of appropriate battery technologies that can function efficiently in the high temperature conditions in India need to be given utmost importance.
- **Prospects of EVs in India**
  - India being one of the fastest growing economies in the world presents a great opportunity for the automobile industry as the **demand for automobiles would only increase.**
  - The **climate commitments coupled with the increasing awareness of the consumers on environmental aspects** are likely to enhance the share of electric vehicles in the automobile sector.
  - **According to NITI Aayog**, if India reaches an EV sales penetration of 30% for private cars, 70% for commercial cars, 40% for buses, and 80% for 2 and 3 wheelers by 2030, a saving of 846 million tons of net CO<sub>2</sub> emissions and oil savings of 474 MTOE can be achieved.
  - It also provides an opportunity to grow **India as a manufacturing hub for EVs (Detroit of EVs)**, provided policies are supportive. It is important that such policies not only focus on reducing the upfront costs of owning an EV but also reduce the overall lifetime costs of ownership.

## Conclusion

India's economic future and prosperity is dependent on her ability to provide affordable, reliable and sustainable energy to all her citizens.

# ADVANCED COURSE GS MAINS

- Targeted towards those students who are aware of the basics but want to improve their understanding of complex topics, inter-linkages among them, and analytical ability to tackle the problems posed by the Mains examination.
- Covers topics which are conceptually challenging.
- Approach is completely analytical, focusing on the demands of the Mains examination.
- Comprehensive current affairs notes
- Mains 365 Current Affairs Classes (Offline)
- Sectional Mini Tests
- Duration: 12 weeks, 5-6 classes a week (If need arises, class can be held on Sundays also)
- Includes All India  
• G.S. Mains (12 Test)  
• Essay (3 Test)  
Test Series.
- LIVE/ONLINE CLASSES AVAILABLE
- STARTING 18<sup>th</sup> June 1 PM
- Scan the QR CODE to download VISION IAS app

# CHAPTER 10: EFFECTIVE USE OF TECHNOLOGY FOR WELFARE SCHEMES- CASE OF MGNREGS

## Theme

This chapter highlights the benefits of using technology in welfare schemes to improve end to end governance, create a robust evidence based implementation framework in partnership with the States etc and improving overall performance (outputs/outcomes) of the programmes.

## Introduction

- Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), 2005 was passed to ameliorate rural distress by providing at least 100 days of manual labour at minimum wages to anyone who seeks employment/ to enhance the livelihood security of poor households in rural areas.
- Initially MGNREGS had several inefficiencies which included widespread corruption, political interference, leakage, and significant delay in wage payments. In 2015, it was reviewed and government initiated major reforms using technology and emphasised on bringing in more transparency and accountability, robust planning and creation of durable productive assets.
- As a result, the wage payment system underlying MGNREGS was streamlined, thereby reducing the scope for delays in payment. This is important because -
  - delays in payments can materially drive genuinely distressed farmers away from MGNREGS
  - improvements in the targeting of MGNREGS to genuine beneficiaries can increase the demand for work from distressed workers, thereby effectively realising the objective of the programme

## Use of Technology in implementation of MGNREGS

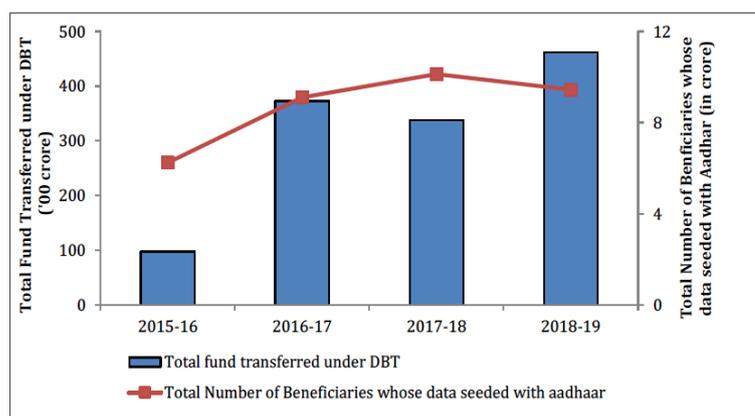
- Before implementation of DBT, wages were transferred to panchayat bank accounts and workers had to collect these wages from gram panchayat office. After this, there were attempts to introduce a system of DBT but there came **two major constraints**:
  - rural population did not have bank accounts
  - verification of genuine beneficiary was still posing a problem.

### Perceived Benefits of DBT

- Providing timely release of payments (improving programme performance and instilling trust and confidence in system by beneficiaries)
- Ensuring correct funds are transferred to correct beneficiaries, reducing corruption & leakages in system
- Strong focus on security, tracking and monitoring of funds (through use of digital sign/signatures and convergence/interoperability),
- Reconciliation process during payments between intermediate agencies involved in funds transfer (near real time tracking, accountability and transparency).
- Streamline the verification process and end to end funds release process in all the beneficiary oriented schemes

- Various government initiatives have facilitated overcoming these.
  - **JAM Trinity:** It ensured timely transfer of funds to the right beneficiary and enabled effective targeting under welfare schemes.
    - ✓ **Pradhan Mantri Jan Dhan Yojana (PMJDY):** It was launched in 2015 to ensure universal access to banking facilities.
    - ✓ **Aadhar:** Linking Aadhaar Number to an active bank account was the key to implementing income transfer as it provided a credible identity source.
    - ✓ **Mobile:** by expanding the mobile payment options, the

Figure 2: Coverage of MGNREGS by DBT



Government was able to **ease the connectivity issue** as people could get access to banking facilities using their **mobile phones**.

- **National electronic Fund Management System (NeFMS):** Implemented in the year 2016, under this the **Central Government directly credited the wages of the MGNREGS workers, on a real time basis**, to a specific bank account opened by the State Governments. Currently NeFMS is implemented in 24 States and 1 Union Territory. This initiated the implementation of DBT in this scheme.
  - ✓ As a result of this initiative, the **e-payment under MGNREGS has increased** from 77.34% in 2014-15 to 99% in 2018-19.
- **Aadhar Linked Payments (ALP):** Almost 55.05 per cent of all the payments under MGNREGS are through Aadhaar Based Payment Systems (ABPS). It speeded up the wage payment cycle in the following two ways.
  - ✓ Government officials require **less time to verify and audit claims from such accounts**.
  - ✓ Central Government can transfer wages directly to the bank accounts of the beneficiaries, thereby **cutting the bureaucratic red tape**.

#### Some Initiatives to streamline MGNREGS

- **NREGASoft** is a local language enabled work flow based e-Governance system which makes available all the documents like Muster Rolls, registration application register, job card/employment register/ muster roll issue register, muster roll receipt register that are inaccessible to the public otherwise.
- **GeoMGNREGA** uses space technology to develop a database of assets created under MGNREGS using technological interventions like mobile based photo geo-tagging and a GIS based information system for online recording and monitoring.
- **Support for Drought Proofing:** In 2015-16, provision of additional employment of 50 days in drought affected areas over and above 100 days per household under MGNREGS was approved.
- **Increased accountability:** Various citizen centric mobile Apps like Gram Samvaad Mobile App and JanMnREGA (an asset tracking and feedback app for MGNREGS assets) have been developed, which aim to empower the rural citizens by providing direct access to information and improve accountability to the people.

#### Impact of DBT on Effectiveness of MGNREGS

- **Increased coverage:** Not only more people are reporting for work, employment generated is higher post implementation of DBT. Further, more than 90 per cent of the person days benefit the vulnerable sections.
- **Timely Payment of Wages:** Due to intervention of **NREGASoft**, in 2014-15, 26.9 per cent of the payments were generated within 15 days, which has now risen to 90.4 per cent in 2018-19. Also, after the implementation of ALP more funds flowed through DBT.
  - Delay in payments reduced by almost one-third in the post-ALP period.
- **Demand for MGNREGS Work:** Before the implementation of ALP, the rural poor treated MGNREGS as an option to earn additional income during good times rather than a shock absorber during bad times.
  - Post ALP, there has been a reversal of this trend and an increase in the demand of work in the distressed areas has been observed.
- **Supply of work under MGNREGS:** There has been 20% increase in the supply of work in blocks that are affected by drought. Hence, the increased state capacity to implement anti-poverty programmes brought about by ALP can potentially bridge the demand supply gap in MGNREGS.
- **Work Done under MGNREGS:** Actual work done under MGNREGS also increased due to the use of ALP.

#### Way Forward

The above analysis has the following policy implications:

- **Probable Indicator of distress:** A dashboard can be created which flashes 'alerts' from areas under local distress to enable policymakers to act in a timely manner. This can be done by utilizing information on demand for work under MGNREGS and correlating it with other real-time measures of weather etc., that lead to rural distress.
- **Expansion of 'works' under MGNREGS:** To further increase the effectiveness of the Scheme, the definition of 'works' under the Scheme should be regularly reviewed and amended in light of the

requirements. For instance, inclusion of de-silting of canals and water bodies in the Water Conservation Mission would enhance their storage capacity and mitigate the frequency of floods.

- **Up-skilling the MGNREGS Workers:** It will help them increase incomes and also provide horizontal and vertical mobility to them. The convergence of MGNREGS with Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY) and involvement with women Self-Help Groups needs to be strengthened so that supply for skilled wage labour increases.
- **Expanding use of JAM to other Welfare Schemes:** The adoption of DBT in programmes which involve transfer of cash benefits (scholarships or pensions) and price subsidies needs to be strengthened to minimise exclusion and inclusion errors. This will make public spending more efficient and effectively targeted.
- **Use of Digital Infrastructure for micro- benefits:** Digital infrastructure created under MGNREGS can be used to expand the reach of the programmes through provision of micro-insurance, micro- pensions and micro-credit. Its wide use can lead to financial and economic inclusion.

**“ The Secret To Getting Ahead Is Getting Started ”**

**LIVE / ONLINE CLASSES AVAILABLE**

**ALTERNATIVE CLASSROOM PROGRAM for**

**GENERAL STUDIES**

**PRELIMS & MAINS 2021 & 2022**

**DELHI**

|                        |                        |                       |                       |
|------------------------|------------------------|-----------------------|-----------------------|
| Regular Batch          |                        | Weekend Batch         |                       |
| <b>11 July</b><br>6 PM | <b>25 July</b><br>9 AM | <b>23 Aug</b><br>2 PM | <b>6 July</b><br>9 AM |

- Approach is to build fundamental concepts and analytical ability in students to enable them to answer questions of Preliminary as well as Mains examination
- Includes comprehensive coverage of all the topics for all the four papers of GS Mains , GS Prelims and Essay
- Includes All India GS Mains, Prelim, CSAT and Essay Test Series of 2020, 2021, 2022
- Our Comprehensive Current Affairs classes of PT 365 and Mains 365 of year 2020, 2021, 2022 (Online Classes only)
- Includes comprehensive, relevant and updated study material
- Access to recorded classroom videos at personal student platform

**Scan the QR CODE to download VISION IAS app**

# CHAPTER 11: REDESIGNING A MINIMUM WAGE SYSTEM IN INDIA FOR INCLUSIVE GROWTH

## Theme

This chapter outlines the complexities of **minimum wage policy** in India and the potential it holds in driving up aggregate demand and building and strengthening the middle class, and thus spur a phase of sustainable and inclusive growth.

## Introduction

- Minimum wages can promote social justice without any major negative implication for employment if wages are set at an adequate level.
- In the last five years, India’s growth story has been powered by private consumption. Therefore, with 93%

workers in the informal economy, a well-designed minimum wage system can reduce inequalities in incomes, bridge gender gaps in wages and alleviate poverty in the country.

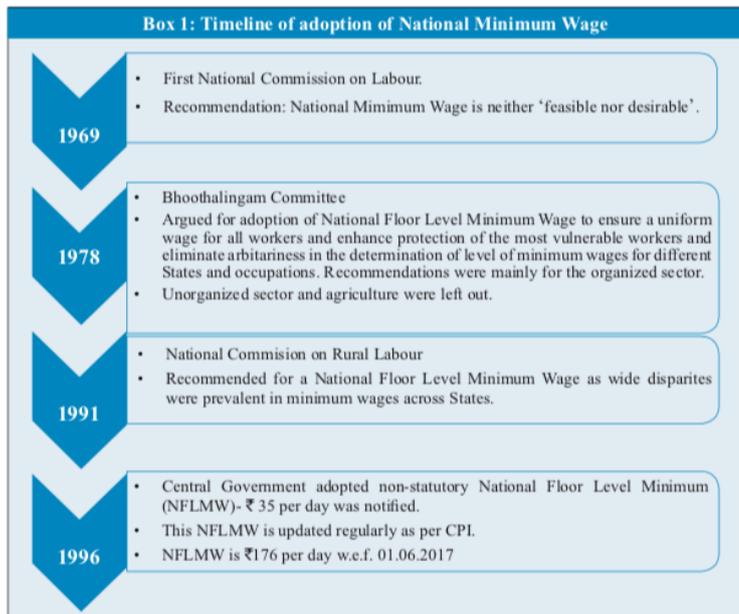
### Minimum Wage System in India

- India was one of the first developing countries to introduce minimum wages with the enactment of the Minimum Wages Act way back in 1948.
- The Act **protects both regular and casual workers**.
- Minimum wage rates are set both by the Central and the State governments for employees working in selected ‘scheduled’ employment.
- Minimum wages have been set for different categories of workers according to skill levels, location and occupations.
- The Act **did not prescribe norms for fixing the level of the minimum wage**.
- The act provides for **tripartite advisory boards** consisting of employers, employees of scheduled employments and independent persons to advise government in fixing minimum wages.

## Issues with Minimum Wage System in India

Over the last 70 years, the minimum wage system in India has expanded and has become complex. There are various issues, which exist in the system, which are-

- **Issues relating to its coverage-** Today, there are nearly 429 scheduled employments and 1,915 scheduled job categories for unskilled workers. This massive expansion in job categories and wage rates has led to major variations not only across states but also within states.
  - The number of scheduled employments varies from 3 in Mizoram to 102 in Assam.
- **Lack of uniform criteria for fixing the minimum wage rate-**
  - Some states link the wages to the cost of living through a variable dearness allowance (VDA) and some states do not.
  - The notified lowest minimum wage rate varies from Rs. 115 in Nagaland to Rs. 538 in Delhi.
  - The main justification for **persisting with different levels of minimum wages** (rather than a national minimum wage) across states is that **they reflect different levels of economic development**.



### Government effort to simplify the Minimum Wage framework

- The government has taken various measures to improve the same such as-
  - Declaring a **National Floor Level Minimum Wage (NFLMW)**,
  - Strengthening the **coordination** of the Central Advisory Board with State Advisory Boards,
  - Promoting states to determine minimum wage rates through **consultations** within five broader regional committees.
- However, a simple system covering as many workers as possible, understood by all, and easily enforceable is the key to improve the effectiveness of minimum wage.

However, the data show that **some of the lowest minimum wages for unskilled workers notified by the more advanced and industrialised states.**

- **Minimum Wages Act does not cover all wage workers-** as one in every three-wage workers in India is not protected by it. Some major vulnerable categories, such as domestic workers – are presently covered only in 18 States and Union Territories. Further, the revision of minimum wage rates has often been delayed.
- **Presence of gender discrimination-** For instance, women dominate in the category of domestic workers while men dominate in the category of security guards. While both these occupations fall within the category of unskilled workers, the minimum wage rate for domestic workers within a state is consistently lower than that for the minimum wage rates for security guards.
- **Compliance with the act-**
  - Although most of the notified minimum wage rates in different states have moved above the NFLMW rate, though there are still a few states and occupations/job categories for which the **prevailing minimum wage rates are below the NFLMW** as of 2018-19.
  - Though there is a trend towards increasing compliance but there is a **gender gap in compliance** similar to the gender gap in level of minimum wages. 39 per cent of the male casual workers and 56 per cent of women casual workers in rural areas received wages below the NFLMW in 2012.
  - It has also been observed that **compliance levels** are significantly **higher for regular wage workers when compared to casual wage earners.**

### Impact of Minimum Wages

- **On wage levels-**
  - Although minimum wages have not percolated to protect the lowest paid workers, but they show a **'lighthouse effect'** i.e., the minimum wage acts as a benchmark that pulls up wages in the low-paid and informal sector by enhancing the bargaining power of vulnerable workers
- **On wage inequality-**
  - Between 1993 and 2011, the wage inequality has increased amongst regular workers while it has decreased among casual workers.
  - Further, the gap in the wages of middle 10 percent workers and bottom 10 percent workers has declined consistently, again highlighting the **'catching up' process** by casual workers.
  - Such mixed trend of different directions of wage inequalities can be explained by the rise of average minimum wages due to MGNREGs wages, which were benchmarked to minimum wages.
  - Hence, a well-designed and effective implementation of minimum wages will strengthen the trend towards decreasing wage inequality especially at lower levels.
  - This becomes all the more significant as women constitute the majority of the bottom rungs of the wage distribution.
- **On employment-**
  - Various studies show that that minimum wages have only a minimal (or no) impact on employment in emerging economies.
  - However, on the other hand some studies a positive effect of minimum wages on employment levels for both men and women. These studies have further shown that while there was significant impact in rural areas, the impact in urban areas was relatively insignificant.

#### Box 3 : Use of Technology for Minimum Wage Enforcement- Cross Country Experiences

- In UAE, all enterprises have been legally required to pay wages for both national and migrant workers through banks and other financial service providers. This system allows the Ministry of Labour to have a comprehensive wage database and an electronic wage payment monitoring mechanism for enterprises within the country.
- In South Africa a system, called 'Impimpi Alive', enables workers to send anonymous SMS messages to the Department of Labour (DOL) after which an inspector is dispatched to the employer's place of business within 48 hours.
- In U.S. an app – The Wage & Hour Guide for Employers App – puts federal and state wage and hour laws at the fingertips of employers as well as law makers for better transparency.
- U.S. also has an app – GovDocs Minimum Wage app that provides the most up-to-date minimum wage rate data for all company locations.

## Way Forward

- **Simplification and Rationalisation-** of minimum wages as proposed under the **Code on Wages Bill** should be taken ahead. Apart from amalgamation of different minimum wages acts in the bill, it should also subsume all the different definitions of wages in different Labour Acts existing currently.
- **Setting a National Floor Level Minimum Wage-** and notified by the Central Government that can vary across the five geographical regions. Accordingly, the states can fix the minimum wages, which should not be less than the 'floor wage.' It would help create parity among the states in the labour cost for investment as well as help reduce distress migration.
- **Criteria for setting Minimum Wage-** the Code on Wages Bill should consider fixing minimum wages based on either of the two factors- (i) the skill category i.e unskilled, semi-skilled, skilled and highly skilled; and (ii) the geographical region, or else both. This key change would substantially reduce the number of minimum wages in the country.
- **Coverage-** The proposed Code on Wages Bill should extend applicability of minimum wages to all employments/ workers in all sectors and should cover both the organized as well as the unorganized sector.
- **Regular adjustment-** A national level dashboard needs to be set up by the Ministry of Labour & Employment, which shows the date of the last revision in the minimum wage adjunct to the mandated period. This would enable dissemination of information and increased transparency in the system.
- **Role of Technologies-** including a variety of online, mobile phone and networking technologies can be used to streamline the complex system. It can help the workers to process the information on different wages and use it for their benefit. There needs to be an interlinking between the national level dashboard with states and Common Service Centres (CSCs), so that there is intimation as soon as it is found that the statute is not being followed in any state or occupation in the notified area.
- **Grievance Redressal-** including an easy to remember toll-free number for complaints and a culture of swift action on them should be established.

## Conclusion

An effective minimum wage policy is a potential tool not only for the protection of low- paid workers but is also an inclusive mechanism for more resilient and sustainable economic development.

## VOLUME – II

# CHAPTER 1: STATE OF THE ECONOMY IN 2018-19: A MACRO VIEW

### Overview: Global Economic Scenario

- India continues to remain the **fastest growing major economy** in the world in 2018-19, despite a slight moderation in its GDP growth from 7.2% in 2017-18 to **6.8% in 2018-19**. The world output growth declined from 3.8% in 2017 to 3.6% in 2018.
- This slowdown followed the **escalation of US China trade tensions, tighter credit policies** in China, and **financial tightening alongside the normalization of monetary policy** in the larger advanced economies.
- India is the **seventh largest economy** in terms of Gross Domestic Product (GDP) in current US\$. With **Purchasing Power Parity (PPP)** adjustments, India's GDP at current international dollar, ranks **third** in the world.
- The contribution of the Indian economy to the GDP of Emerging Market and Developing Economy (EMDEs) and world economy has **increased consistently** over the years.

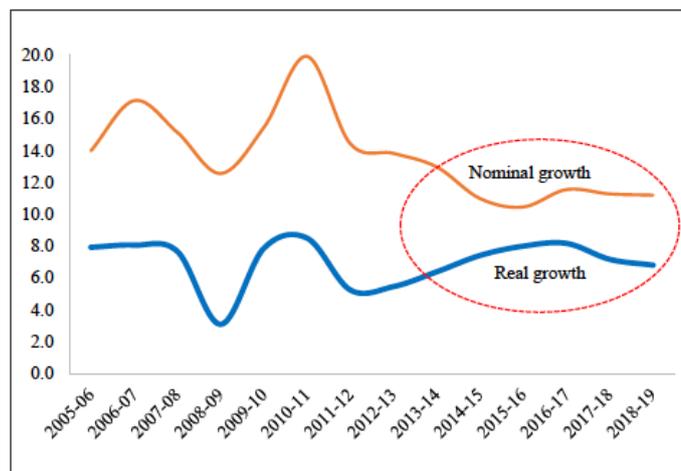
### Overview: Indian Economy

- India's growth of real GDP has been high with average growth of **7.5 per cent in the last 5 years**.
- In 2018-19, it **experienced some moderation** mainly on account of lower growth in 'Agriculture & allied', 'Trade, hotel, transport, storage, communication and services related to broadcasting' and 'Public administration & defence' sectors.
- On the **demand side**, lower growth of GDP in 2018-19 was accounted for, by a **decline in growth of government final consumption**, change in stocks and contraction in valuables.
- Although growth rate of real GDP was high during the last few years, the coterminous decline in the nominal GDP growth from 2010-11 onwards, points towards a **secular decline in inflation**. The gap between nominal and real growth rate has reduced significantly. Thus, the GDP deflator, which is a weighted average of Consumer Prices Index (CPI) and Wholesale Price Index (WPI), became smaller.
- **Core Gross Value Added (GVA)** (measured as GVA except 'Agriculture & allied' activities, and 'Public administration & defence') shows **higher growth** than that of overall GVA in 2018-19.

### Drivers of Growth

- Consumption - Within total final consumption, it is the **private final consumption expenditure** that has a major share (close to 60 per cent) in the economy's GDP, with its growth rate mostly being higher than the overall GDP growth rate. The huge size of the economy serves as a big market for businesses.
- The second component of consumption is the **government final consumption expenditure (GFCE)** which **decelerated** in 2018-19. GFCE comprises government's (revenue) expenditure on compensation of employees, net purchase of goods and services and consumption of fixed capital.
- The third major component of demand is **investment**. Investment (Gross Capital Formation) accounts for nearly 32 per cent of GDP, within which **fixed investment (Gross fixed capital formation)** accounts for about 29 per cent of GDP.

**Figure 7: Growth in GDP (per cent)**



- Fixed investment mainly refers to the **value of new machinery and equipment and the value of new construction activity** of dwellings and other structures. **Cultivated biological resources and intellectual property products** are the other two components of fixed investment.
- After declining investment rate and fixed investment rate, there were **early signs of recovery since 2017-18**. Simultaneously, there has been a **decline in savings rate** as well, with the household sector entirely contributing to the decline.
- The **saving investment gap narrowed** in 2017-18. This is also reflected in the narrowing of current account deficit to GDP ratio.
- The fourth component of demand is **net exports**. The trend of growth of exports and imports was different in 2018-19 in rupee and US dollar terms. While the growth of both export and import declined in US\$ terms, it increased in rupee terms in 2018-19. This happened due to the **depreciation of rupee vis-à-vis US dollar** in 2018-19.
- **Supply side of the economy - Gross Value Added (GVA)**, reflects the supply or production side of the economy to which net indirect taxes on products are added to get GDP at market prices. **Growth of GVA reflected a decline** in economic activity, registering a growth of 6.6% in 2018-19, lower than 6.9% in 2017-18. Growth of net indirect taxes was 8.8% in 2018-19, lower than that of 2017-18, on account of loss of momentum of economic activity.

### Changing pattern of consumption in India

- The pattern of consumption has undergone some change over time – from essentials to luxuries and from goods to services. This shows an **increase in discretionary spending** by the households as compared to the necessities.
- This shift is also visible in the change in pattern of spending from **consumption of goods to services**. There has been a decline in share of goods in total final consumption.
- The **share of non-food expenditure has increased** with the expenditure share increasing for education, medical, conveyance and durable goods.

# ALL INDIA TEST SERIES

Get the Benefit of Innovative Assessment System from the leader in the Test Series Program

## PRELIMS

- **General Studies** (हिन्दी माध्यम में भी उपलब्ध)
- **CSAT** (हिन्दी माध्यम में भी उपलब्ध)

|  |   |
|--|---|
| ➤ VISION IAS Post Test Analysis™                                 | ➤ All India Ranking                             |
| ➤ Flexible Timings   | ➤ Expert support - Email/Telephonic Interaction |
| ➤ ONLINE Student Account to write tests and Performance Analysis | ➤ Monthly current affairs Analysis              |

for **PRELIMS 2020 Starting from 21<sup>st</sup> July**

---

## MAINS

- **General Studies** (हिन्दी माध्यम में भी उपलब्ध)
- **Essay** (हिन्दी माध्यम में भी उपलब्ध)
- **Geography • Sociology • Anthropology**

for **MAINS 2019 Starting from 14<sup>th</sup> July**

for **MAINS 2020 Starting from 21<sup>st</sup> July**

Scan the QR CODE to download **VISION IAS** app



# CHAPTER 2: REVIEW OF FISCAL DEVELOPMENTS

## Introduction

- The government has reiterated the objective of fiscal consolidations with the introduction of a new **fiscal targeting framework**, which rests on **twin pillars of reducing debt and fiscal deficit**.
- Revenue augmentation and Expenditure reprioritization and rationalization continue to be integral to fiscal reforms.
- The revised fiscal glide path envisaged achieving **fiscal deficit of 3 per cent of GDP by FY 2020-21** and **Central Government debt to 40 per cent of GDP by 2024-25**.

## Central Government Finances

- **Trends in Receipts-** The Budget 2018-19 targeted significantly high growth in non-debt receipts of the Central Government (driven by robust growth in net tax revenue and non-tax revenue). But the outcome in the Provisional Actual figures is lower than the budget estimate owing to reduction in the net tax revenue.

### Central Government Receipts

It can broadly be divided into non-debt and debt receipts.

- The **non-debt receipts** comprise of tax revenue, non-tax revenue, recovery of loans, and disinvestment receipts.
- The **debt receipts** mostly consist of market borrowings and other liabilities, which the government is obliged to repay in the future.

- **Tax revenue:** 51 per cent of gross tax revenue (GTR) was estimated to accrue from direct taxes and the remaining 49 per cent from indirect taxes. **Corporate tax** was the largest contributor to the GTR followed by GST while contribution of customs was the lowest.

✓ **Direct taxes have grown owing to improved performance of corporate tax** while **indirect taxes have fallen short of budget estimates** largely owing to the shortfall in GST revenues.

✓ While the tax to GDP ratio has improved over last 6 years, GTR as proportion of GDP declined by 0.3 percentage points in 2018-19 over 2017-18.

✓ As **India's tax to GDP ratio is low**, Government faces the challenge of providing sufficient funds for investment and infrastructure expansion while maintaining fiscal discipline.

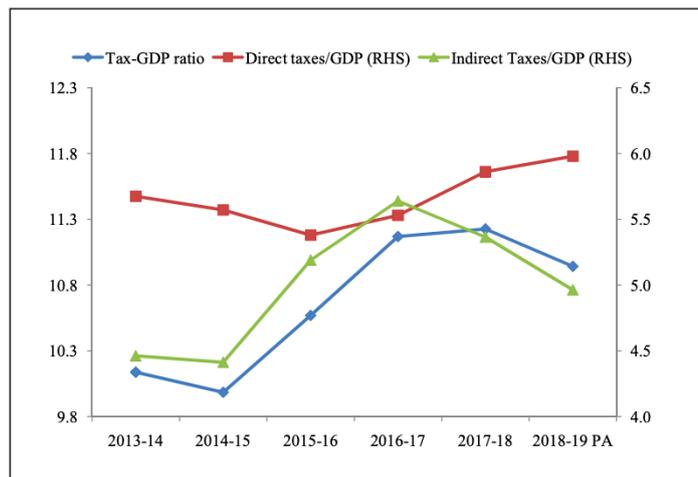
✓ Better tax administration, widening of TDS carried over the years, anti-tax evasion measures and increase in effective tax payers base have contributed to direct tax buoyancy.

- **Non-Tax Revenue:** Non-tax revenue constitutes about 1.3 per cent of GDP in 2018-19.

✓ Non-tax revenue has seen a mixed trend while increasing some years (for e.g. 2013-14) and decreasing in others (for e.g. 2017-18).

- **Non-Debt Capital Receipts:** It mainly consist of recovery of loans and advances, and disinvestment receipts.

**Figure 3: Tax to GDP ratio (in per cent)**

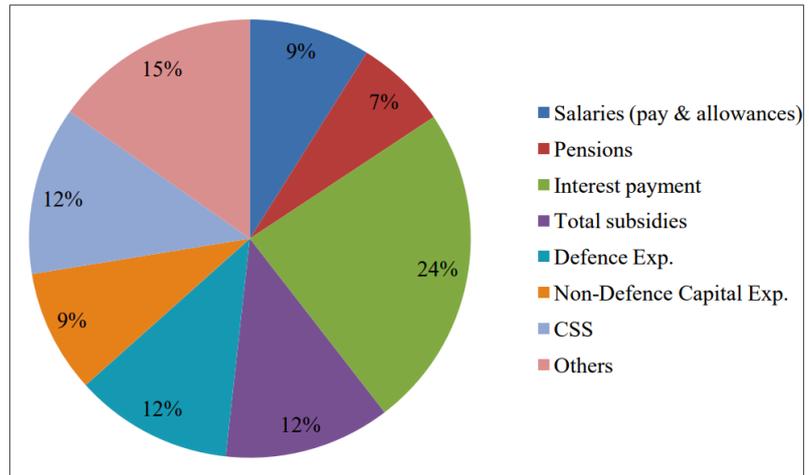


### Non-tax revenue

It consists mainly of interest receipts on loans to States and Union Territories, dividends and profits from Public Sector Enterprises including surplus of Reserve Bank of India transferred to GOI, and external grants and receipts for services provided by the Central Government.

- ✓ The share of recovery of loans has declined over the years.
- ✓ **Disinvestment-** Against the estimated Rs.0.80 lakh crore for the year 2018-19, government collected Rs.0.85 lakh crore using a variety of instruments like Initial Public Offers (IPOs), Offer for Sale (OFS), Buyback, Exchange Traded Funds (ETF), etc.

Figure 7: Composition of Expenditure in 2018-19 RE



- **Trends in Expenditure-** As per cent of GDP, total Central Government expenditure fell by 0.3 percentage points in 2018-19 PA over 2017-18, with 0.4 percentage points reduction in revenue expenditure and 0.1 percentage point increase in capital expenditure.

○ Several steps have been taken to rationalise central government expenditure, such as:

- ✓ Improved targeting of subsidies
- ✓ Restructuring and reclassification of central sector and centrally sponsored schemes.
- ✓ Increase indigenisation and involvement of private sector in defence industry through Make II procedure.
- ✓ An innovation ecosystem for Defence, titled “Innovation for Defence Excellence” (iDEX) was launched to create an ecosystem to foster innovation and technology development in Defence and Aerospace.
- ✓ A Defence Investor Cell has been made functional in the Department of Defence Production (DDP) to act as one-stop solution for all types of defence production related queries.
- ✓ Various other factors such as decrease in global crude prices, decontrol of petroleum prices etc. have contributed to a decrease in revenue expenditure.

- **Transfer to states:** Both in absolute terms, and as a percentage of GDP, total transfers to States have risen between 2014-15 and 2018-19 RE.

Figure 6A: Revenue & Capital Expenditure as per cent of GDP

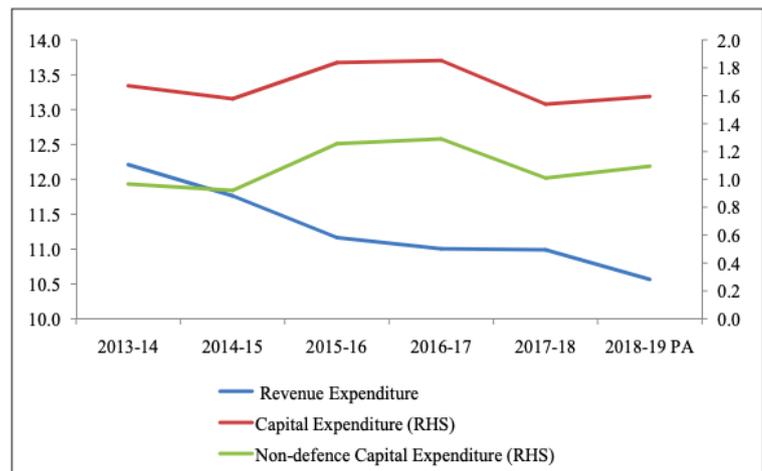
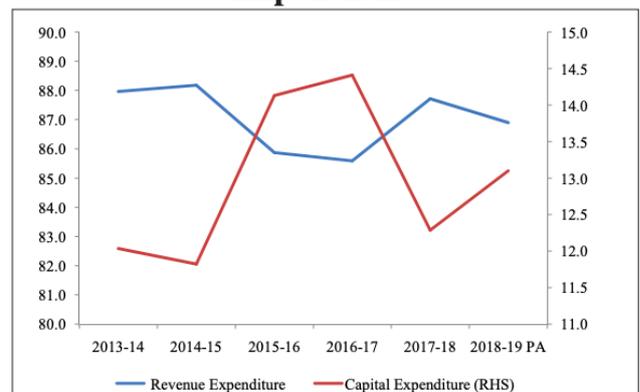
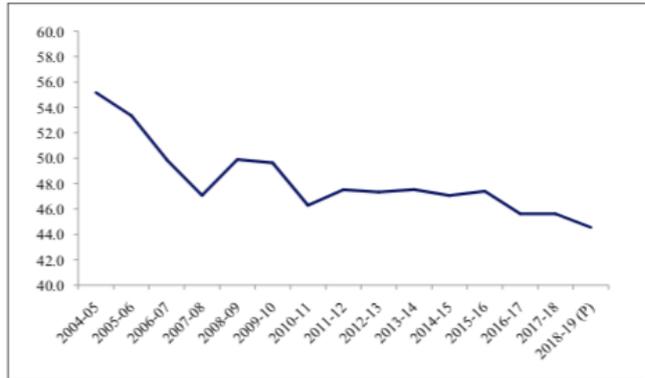


Figure 6: Revenue and Capital Expenditure as per cent of Total Expenditure



- **Central Government Debt:** Total liabilities of the Central Government as a ratio of GDP, has been consistently declining, particularly after the enactment of the FRBM Act, 2003. This is an outcome of both fiscal consolidation efforts as well as relatively high GDP growth.
  - ✓ Central government debt is characterised by low currency and interest rate risks. This is owing to low share of external debt in the debt portfolio and almost entire external borrowings being from official sources.
- **Fiscal Deficit-** The FY 2018-19 has ended with fiscal deficit at 3.4 per cent of GDP and debt to GDP ratio of 44.5 per cent (Provisional).

Figure 12: Trend in Centre's Debt-GDP ratio (in per cent)



**State Finances and General Government**

- **States finances-** States own tax and non-tax revenue display robust growth in 2017-18 RE, which is envisaged, to be maintained in 2018-19 BE.
  - The outstanding liabilities of states, as per cent of GDP, has increased after 2014-15. The issuance of UDAY bonds in 2015-16 and 2016-17, farm loan waivers, and the implementation of pay commission awards have led to higher debt to GDP ratio.
- **General Government (Centre plus States)-** has been on the path of fiscal consolidation and fiscal discipline.
  - The combined liabilities of Centre and States have declined to 67 per cent of GDP as on end-March 2018 from 68.5 per cent of GDP as on end-March 2016.
  - The fiscal deficit of General Government is further expected to decline from 6.4 per cent of GDP in 2017-18 RE to 5.8 per cent of GDP in 2018-19 BE

Figure 16A: Gross Fiscal Deficit of States (as per cent of GDP)



**Outlook for 2019-20**

The coming year will pose several challenges on the fiscal front such as-

- There are apprehensions of slowing of growth, which will have implications for revenue collections.
- The financial year 2018-19 has ended with shortfall in GST collections. Therefore, revenue buoyancy of GST will be key to improved resource position of both Central and State Governments.
- The resources for now expanded Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) and Ayushman Bharat, as well as new initiatives of the new Government, will have to be found without compromising the fiscal deficit target as per the revised glide path.
- US sanctions on oil import from Iran is likely to have impact on oil prices and thereby on the petroleum subsidy, apart from implications for current account balances.
- Fifteenth Finance Commission will submit its report for next five years beginning April 2020. Its recommendation especially on tax devolution will have implications for Central Government finances.

# CHAPTER 3: MONETARY MANAGEMENT AND FINANCIAL INTERMEDIATION

## Monetary Developments during 2018-19

- **Monetary policy:** It witnessed a u-turn over the last year as **the benchmark policy rate** was first hiked by 50 bps and later reduced by 75 bps due to various **reasons** like:
  - weaker-than- anticipated inflation, growth slowdown, increase in crude oil prices, expectations of a positive outcome from US-China trade negotiations and softer international monetary conditions.
- **Monetary aggregates: Growth rate of monetary aggregates** reverted to their long-term trend after experiencing unusual behaviour in 2016-17 due to demonetisation and again in 2017-18 due to the process of remonetisation.
  - Reserve money (M0) and broad money both expanded during this period. However, money multiplier (M3/M0) is **declining for two successive years in 2017-18 and 2018-19**, reflecting expansion in M0 at faster pace than M3.

- **Reserve Money (M0)** = Currency in circulation + Bankers' deposits with the RBI + 'Other' deposits with the RBI
- **Broad Money (M3)** = Currency with the public + Demand deposits with the banking system + 'Other' deposits with the RBI + Time deposits with the banking system

## Liquidity Conditions and its Management

- **Current Status:** In 2018-19, **liquidity conditions** have been **systematically tight lately**
  - This liquidity tightening happened due to **growth in bank credit, growth in currency in circulation and drawing down of foreign exchange reserves by RBI to smoothen exchange rate volatility.** Consequently, liquidity in excess of Rs 2 lakh crore was sucked out of the system.
- **Steps taken by RBI for this situation**
  - **infusing liquidity through Open Market Operations,**
  - **increasing the Facility to Avail Liquidity for Liquidity Coverage Ratio (FALLCR)** which supplemented the ability of individual banks to avail liquidity from the repo market against high-quality collateral.
  - **Reducing the statutory liquidity ratio (SLR)**
  - Injected rupee liquidity for through **long-term foreign exchange buy/sell swaps.**

## Developments in the G-Sec Market

- During 2018-19, the **10-year benchmark g-sec yields were volatile and closely tracked** the movement in oil prices, domestic liquidity and rupee exchange rate.

## Banking Sector

- The **performance of the banking sector** (domestic operations), Public Sector Banks (PSBs) in particular, **improved in 2018- 19.**
- The **Gross Non-Performing Advances (GNPA)** ratio of SCBs decreased from 11.5 % to 10.1 % between March 2018 and December 2018.
- **GNPA ratio of PSBs decreased** from 15.5 % to 13.9 % between March 2018 and December 2018.
- **Restructured Standard Advances (RSA) ratio and Stressed Advances (SA)** ratio both declined during this period.
- **Capital to risk-weighted asset ratio (CRAR) of SCBs increased** largely due to improvement of CRAR of Public sector banks (PSBs).

## Non-Banking Financial Sector

- **Role of NBFC:** NBFCs have played increasingly **important role in resource mobilization and credit intermediation**, thereby helping commercial sector to make up for low bank credit growth.
  - NBFCs depend **largely on public funds which account for 70 per cent of total liabilities** of the sector.

- **Bank borrowings, debentures and commercial paper** are the major sources of funding for NBFCs.
- **Liquidity crisis:** However, it **experienced difficult times** in 2018-19 in the aftermath of the ratings downgrades and default of IL&FS Group.
  - Immediately after the IL&FS crisis, NBFCs faced severe **liquidity crunch as mutual funds (MFs) stopped refinancing** the loans of NBFCs.
  - Other indicators (such as CRAR, GNPA) have also been affected adversely.
  - **Government took measures** to control this issue, consequently, the flow of resources from the banking sector to **NBFCs improved for some time.**

### Developments in Capital Market

- **In primary market,** it witnessed a **significant decrease in resource mobilization through public issue and rights issue of equity** compared to the previous year.
  - Resource mobilization through **issuance of debt public issue** rose quite significantly during 2018-19
- During the same period there was **net inflow in mutual fund industries** and **net outflow of investment by Foreign Portfolio Investors (FPIs).**

### Insurance Sector

- Insurance has evolved as a **tool of safeguarding the interest of people from loss and uncertainty.**
  - It provide a safety net for individuals and enterprises in urban and rural areas.
  - It encourages savings and provides long-term funds to individuals and provide funds for infrastructure development and other long gestation projects of the nation.
- The potential and performance of the insurance sector are generally assessed on the basis of two parameters, viz., **insurance penetration and insurance density.**
  - **Insurance penetration** which was 2.71 per cent in 2001, has **steadily increased** to 3.69 per cent in 2017 (Life 2.76 per cent and Non- Life 0.93 per cent).
  - The **insurance density** in India which was US\$11.5 in 2001, reached to US\$73 in 2017 (Life-55\$ and Non-Life -18\$).
  - **Globally insurance penetration and density** were 3.33 per cent and US\$353 for the life segment and 2.80 per cent and US\$297 for the non-life segment respectively.

The measure of insurance penetration and density reflects the level of development of insurance sector in a country.

- **Insurance penetration** is measured as the percentage of insurance premium to GDP
- **Insurance density** is calculated as the ratio of premium to population.

### Insolvency and Bankruptcy Code 2016: Resolving Corporate Stress in a Changed Paradigm

- Insolvency and Bankruptcy Code, 2016 (IBC) was enacted to solve the problem of growing NPAs in banking sector.
  - It seeks to achieve resolution of corporate debtors (CDs) in distress and failing that, its liquidation in a time-bound manner under the non-intrusive oversight of the National Company Law Tribunal (NCLT).
  - The Financial Creditors (FC) have been provided with greater role and powers through the committee of creditors. The management and control of assets of the debtor are handed over to an Insolvency Professional (IP) who is responsible for operating the debtor's enterprise as a going concern and managing the corporate insolvency resolution process (CIRP) besides performing other crucial functions.
- Along with this insolvency framework, there were various other steps taken for restructuring of stressed assets like RBI substituted harmonized and simplified generic framework for resolution of stressed assets, Project Sashakt etc.

### Implementation of IBC

- For implementation of IBC, Government established the National Company Law Appellate Tribunal (NCLAT) and its benches, Insolvency and Bankruptcy Board of India (IBBI) and registered Insolvency Professional Agencies (IPAs).
- Also, the Hon'ble Supreme Court upheld the Constitutional validity of the IBC in entirety in the matter of Swiss Ribbons Pvt. Ltd. & Anr. Vs. UoI & Ors.

### Progress Made

- Within 27 months of operationalization of the IBC, as many as 14,000 applications had been filed for initiation of Corporate Insolvency Resolution Process (CIRPs) under the IBC.
- IBC is viewed as a preferred mode to resolve distressed assets and maximize returns and feasible recourse to enforce payment discipline by corporate debtors.

- IBC has enabled the creation of a new cadre of professionals (IPs) capable of managing stressed businesses as a going concern while facilitating an effective resolution.
- The **National e-Governance Services Limited (NeSL)** was registered as the first Information Utility (IU) by the IBBI. The details of information filed with NeSL show a growing trend of use of IU by creditors. Increased use of IUs is expected to eliminate information asymmetry and improve implementation timelines under the IBC.
- Maximum cases had been filed from the manufacturing sector covering industries like steel, fast moving consumer goods (FMCG), etc followed by real estate sector.

#### Institutional Response

- Two sets of amendments have been introduced in the IBC to make the process and outcomes more efficient.
  - **The Insolvency and Bankruptcy Code (Amendment) Act, 2018** which introduced Section 29A, prohibiting persons with certain disabilities from submitting a resolution plan.
  - **The Insolvency and Bankruptcy Code (Second Amendment) Act, 2018** which introduced changes to make the IBC easier to operate by reducing the threshold for decision making by the committee of creditors. This amendment also entailed the recognition of home buyers as FCs.
- The NCLTs and NCLAT continue to play an important role as adjudicating and appellate authorities respectively for IBC.
- As the implementation of the IBC progressed, other regulators and agencies like SEBI, RBI etc also carried out various amendments in their respective rules and regulations for effective implementation of the IBC.

#### Impact of IBC

- **Behavioural change:** The IBC has made a significant impact on the way the default of debts is viewed and treated by promoters and management. It has initiated a cultural shift in the dynamics between lender and borrower, promoter and creditor.
  - The threat of promoters losing control of the company or protracted legal proceedings is forcing many corporate defaulters to pay off their debt even before the insolvency can be started.
- **Increase in the resolution of stressed assets:** Earlier recovery like Lok Adalat, Debt Recovery Tribunal, and SARFAESI Act were recovery focused as compared to the IBC which aims at the turnaround of the debtor while maximizing returns for the creditors. These earlier mechanisms have resulted in an average recovery of 23 per cent to lenders as against nearly 43 per cent under the IBC.

#### Achievements and Recognitions

- India improved its 'Resolving Insolvency' ranking from 134 in 2014 to 108 in 2019 in Ease of Doing Business.
- India won the Global Restructuring Review (GRR) award for the most improved jurisdiction in 2018.

#### Research and Training

- The IBBI has announced the launch of Graduate Insolvency Programme (GIP), the first of its kind, for those aspiring to take up the discipline of IPs as a career or other roles in the value chain.
- The Centre for Insolvency and Bankruptcy (CIB) has been set up at IICA to serve as an apex institute of learning, training, and development in the area of insolvency and its spheres of influence.

#### Way forward

- **Cross Border Insolvency:** The UNCITRAL Model Law on Cross-Border Insolvency (Model Law) is the most widely accepted blueprint to effectively deal with cross-border insolvency issues while ensuring the least intrusion into each country's internal insolvency and bankruptcy laws.
  - India has initiated the steps to adopt the Model Law. A draft Bill has been placed in the public domain for discussion. Once enacted, the law will help in increasing foreign investment and address the key tenets of cross border insolvency.
- **Group Insolvency:** Presently, the insolvency of different companies belonging to the same group is dealt with through separate insolvency proceedings for each company. A coherent approach can address information asymmetry, provide coordination and prevent delay and clogging up of insolvency infrastructure.
  - Recognising the need for a legal framework to deal with insolvency of group companies, the IBBI has recently set up a working group under former SEBI Chairman Mr. U. K. Sinha to recommend a complete regulatory framework to facilitate insolvency resolution and liquidation of debtors in a corporate group.
- **Insolvency and bankruptcy of individuals:** Implementing insolvency law for individuals and partnership firms poses distinct challenges.
  - Recognising the complexities involved, a Working Group under the chairmanship of Mr. P. K. Malhotra has been set up by the IBBI to recommend the strategy and approach for implementation of the provisions of IBC dealing with insolvency and bankruptcy of individuals.
  - The IBC was amended to cover different classes of individuals.
- **Improving NCLT capacity:** The capacity of the NCLT and NCLAT will have to review from time to time and necessary infrastructure support provided.

- A centralized research wing can assist NCLT to stay abreast with the international best practices which will be more crucial with the enactment of the Model Law.
- It is crucial to advance the application of technology to enhance case management by the NCLT for strict timekeeping of insolvency cases.
- Technology can also be used for data mining and analysis for constant review of the IBC impact on the ground.

**MONTHLY  
CURRENT AFFAIRS  
REVISION 2020**

**GS PRELIMS  
+ MAINS**

प्रारम्भ  
**10 July  
5 PM**

Starts  
**25 June  
5 PM**

- Detailed topic-wise up-to-date contextual understanding of all current issues.
- Opportunities for discussion and debate through “Talk to expert” and during offline presentations in class.
- Assessment of your understanding through MCQs and Mains oriented questions after each topic.
- Two to three classes will be held every fortnight.
- The Course plan (35-40 classes) covers important current issues from standard sources like The Hindu, Indian Express, Business Standard, PIB, PRS, AIR, RS/LSTV, Yojana etc.

Scan the QR CODE to download **VISION IAS** app

हिंदी माध्यम में भी उपलब्ध

# CHAPTER 4: PRICES AND INFLATION

## Introduction

- The economy witnessed a gradual transition from a period of high and variable inflation to more stable and low level of inflation in the last five years. During the fiscal year 2018-2019, inflation continued its downward trajectory on the back of low food inflation.
- This chapter analyses the inflation trends through various indices, drivers of inflation and government efforts taken to control inflation.

## Trends in Inflation

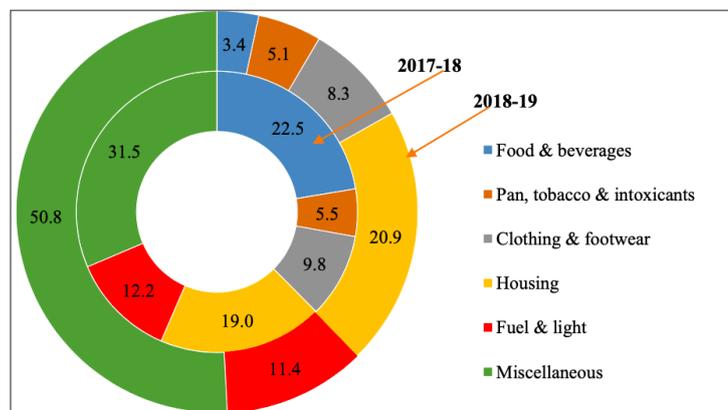
- Headline Inflation-** based on Consumer Price Index-Combined (CPI-C) continued its declining trend for fifth straight financial year. It has remained below 4.0 per cent in the last two years. The decline in 2018-19 was mainly due to low food inflation.
- Food Inflation-** based on Consumer Food Price Index (CFPI) declined to a low of 0.1% during the last fiscal year. Food inflation based on Wholesale Price Index too declined over the last two financial years.
- Inflation based on Wholesale Price Index:** remained moderate at 3% in 2017-18, compared to 1.7% in 2016-17 and -3.5% in 2015-16.
- CPI-C based core inflation** (CPI excluding the food and fuel group) increased during FY 2018-19 as compared to FY 2017-18. However, it has started declining since March 2019.
  - Core Inflation corresponds to the component of inflation that is likely to continue for a long period and is not affected by temporary shocks.
  - As headline inflation exhibits volatility due to short run shocks, Central banks in many countries focus on core inflation.

- Drivers of inflation:** CPI-C inflation during FY 2018-19 was driven mainly by miscellaneous group followed by housing as well as fuel and light group.

- Services inflation has been higher than goods inflation and the gap between the two is growing.
- In recent times, services inflation has influenced headline inflation as it has contributed more than its weight.
- Goods inflation, which accounts for a weight of 76.6 per cent in CPI-C, was 2.6 per cent during FY 2018-19 as compared to 3.2 per cent during FY 2017-18.
- In contrast, services inflation, which accounts for a weight of 23.4 per cent, was 6.3 per cent during FY 2018-19 when compared to 5.0 per cent during 2017-18.

- Rural-Urban Inflation-** Both rural and urban inflation witnessed reduction, but decline in rural inflation is steeper than that of urban inflation since July 2018. The importance of food in determining rural inflation has been declining over the years. In contrast, the role of miscellaneous category i.e. services in determining rural inflation has increased
- State wise Inflation-** Inflation ranged between (-) 1.9 per cent to 8.9 per cent across States in FY 2018-19 compared to 1.5 per cent to 12.4 per cent in FY 2017-18.
  - Majority of states States/UTs had inflation rate lower than All India average for FY 2018-19 with Daman & Diu having the lowest inflation followed by Himachal Pradesh.
- Trends in Global Commodity Prices:** As per the commodity prices published by the World Bank, energy commodity prices have continued their increasing trend in the fiscal 2018-19.
  - Food prices also recorded deflation as per both the World Bank and the Food & Agriculture Organisation (FAO).

Figure 4: Contribution to CPI - Combined inflation 2017-18 and 2018-19 (Share in per cent)



## Efforts to contain inflation

Central Government has taken a number of measures to control inflation especially food inflation:

- **General Measures-**
  - **Advisories are issued to State Governments** to take strict action against hoarding & black marketing to effectively enforce the laws present to control short supply in commodities.
  - **Regular review meetings on prices and availability of key commodities-** are held including the Price Stabilization Fund Management Committee (PSFMC) among others at the highest levels.
  - **Announcement of higher Minimum Support Price (MSP)-** for various crops to incentivize production, enhance availability and moderate prices of food items.
  - **Setting up Price Stabilization Fund (PSF)-** for procurement of agri-horticultural commodities for their release during lean periods (done for onions in 2017-18 and 2018-19)
- **Specific Measures-**
  - **Pulses from the buffer are utilized for strategic market intervention** for price management, meeting institutional requirements (for schemes like Mid-Day Meal Scheme) and requirement of Army and Central Para-Military Forces.
  - **Prohibition on export has been withdrawn** on all varieties of edible oils, except mustard oil (allowed only in packs up to 5 kgs with a Minimum Export Price).
  - **Order imposing controls on States/ UTs has been withdrawn-** in regards to stock limits on edible oils and edible oilseeds.

# CAPSULE MODULE *ON* ETHICS GS PAPER IV

For scoring high in Ethics paper, one needs to have conceptual clarity, ability to interlink theoretical concepts with daily life and proper approach to tackle case studies in a short span of time.

**LIVE / ONLINE  
CLASSES AVAILABLE**

**6 July | 1 PM**



### KEY HIGHLIGHTS/ FEATURES:-

- Module is meticulously designed based on last few years UPSC papers.
- Integrated approach, interlinking different topics of ethics as well as relevant themes of other GS papers
- Batch duration: 12 classes.
- Previous years' questions discussion
- Daily assignment and discussion.
- Printed Study material on whole syllabus in addition to special value addition booklet.



# CHAPTER 5: SUSTAINABLE DEVELOPMENT AND CLIMATE CHANGE

## Introduction

- Increasing growth rate and rapid urbanization in India have spurred the demand for natural resources, exerting pressures on the environment and raising sustainability concerns. Air pollution has emerged as a serious issue in India.
- The 2030 Agenda for Sustainable Development and its 17 SDGs adopted in 2015 presents a roadmap for future development trajectory to all nations with focus on poverty eradication, environmental sustainability, peace and prosperity. India's development agenda is based on principles that are closely related to those propounded in the 2030 Development Agenda.

## Achieving the SDGs

The SDGs are global goals, emphasizing on core areas of poverty and inequality, economic growth, innovation, sustainable consumption and production, climate change, peace and justice and partnerships.

- Estimates suggest that US\$5 to US\$7 trillion per year is required for financing these goals worldwide and US\$3.9 trillion per year in developing countries. However, the current investment in developing countries is around US\$1.4 trillion per year.
- Global action of this scale requires strong coordination between different governments, development institutions, private sector and financial institutions for the effective financing and implementation across the globe.

## India's Progress towards the SDGs

India follows a holistic approach for achieving the SDGs through a comprehensive array of schemes. Since programmes and schemes are basically implemented at the level of States and UTs, tracking of progress is important for appropriate policy actions.

- **Tracking Progress - NITI Aayog** has come up with a single measurable index to track the progress of all the States and UTs across 13 out of 17 SDGs (excluding Goal 12, 13, 14 and 17).
  - The SDG Index Score in 2018 ranges between 42 and 69 for States and between 57 and 68 for UTs. A score of 0 denotes worst performance.
  - **Several states have achieved 100 for achieving SDG 10 (Reduced Inequality) and SDG 15 (Life on Land).** This may be attributed to initiatives such as PMJDY, MGNREGA, the National Environment Policy, National Agro-forestry Policy and Green Highways Policy.
  - **India is struggling to achieve its targets of SDG 5 (Gender Equality) and SDG 11 (Sustainable Cities and Communities)** as large number of states have a score less than 50.
  - **SDG Composite India Index:** Kerala and Himachal Pradesh are the front runners amongst all the states with a score of 69. Among the UTs, Chandigarh and Puducherry are the front runners with a score of 68 and 65 respectively.
- **Policy Suggestion:** A close collaboration between the national and sub-national governments as well as active participation of all other relevant stakeholders are required for meeting the challenges of financing, technical support and continuous monitoring of the progress of each state and UT to achieve the National Sustainable Development Agenda.

## Ganga- The Lifeline of India

Its cleanliness through Namami Gange Mission is vital to achieve the SDG 6 (Ensure availability and sustainable management of water and sanitation for all). For effective implementation and proper synchronization with the State and Local Bodies, National Mission for Clean Ganga (NMCG) was empowered as an Authority under the Environment (Protection) Act, 1986. Major Components of Namami Gange Mission-

- **Sewerage Project Management:** Hybrid Annuity Mode (HAM) and Operation & Maintenance (O&M) included in the project cost and improved governance through 'One City One Operator' approach ensured competitive and positive market participation along with synergy in implementation.
- **Urban Sanitation:** Construction and rehabilitation of Sewage Treatment Plants (STPs) for a prospective year of 2035 in 10 priority cities that contributed more than 60% pollution load in Ganga.
- **Sewerage Infrastructure:** 150 sewerage projects (111 on Ganga stem & 39 in tributaries) has been approved for creation of new and rehabilitated STP capacity and laying of sewerage networks.
  - As of May 2019, 43 of these projects have been completed.
- **Industrial Pollution:** 1,109 Grossly Polluting Industries (GPIs) were identified and surveyed. The compliance of the operational GPIs in 2017 as against 2018 improved from 39% to 76%.
  - **Online Continuous Effluent Monitoring Systems (OCEMS)** of all operating GPIs have been connected with Central Pollution Control Board (CPCB) & State Pollution Control Board (SPCB) servers and a system of SMS alerts have been initiated to noncomplying GPIs, district officials and State Project Management Groups (SPMGs).
  - **Zero black liquor discharge** has been achieved in Paper and Pulp industry and in distillery.
- **Water Quality:** 36 Real Time Water Quality Monitoring Stations (RTWQMS) are operational under the Programme.
  - **Dissolved Oxygen levels have improved while Biological Oxygen Demand (BOD) and coliform bacteria decreased** (2017 vs 2018). The organic pollution load on the river has also decreased.
- **River as Public Space:** 143 ghats have been taken up under the Mission out of which 100 have been completed. Under the Mission, 54 crematories have also been taken up for ensuring safe crematory rituals.
- **Rural Sanitation:** 4,465 villages on the Ganga stem have been declared ODF and support is being provided to 1,662 Gram Panchayats along Ganga for solid and liquid waste management.
- **Ecosystem Conservation:** Massive afforestation drive undertaken in the five Ganga States leading to increase in forested area of 8,631 hectares.
- **Urban River Management:** NMCG, in partnership with National Institute of Urban Affairs (NIUA), is preparing an **Urban River Management Plan** to protect and enhance the status of river health within the city, to prevent their deterioration and to ensure sustainable use of water resources.
  - **High-resolution Light Detection and Ranging (LIDAR) maps** of the entire Ganga stretch would be generated.
- **Water Use Efficiency:** A market for reuse of treated wastewater is being developed as being done in Mathura refinery.
- **Clean Ganga Fund:** This has been set up for encouraging and facilitating corporates and individuals to join the efforts of rejuvenation of Ganga by contributing to this Fund and sponsoring certain projects.

#### Resource Efficiency (RE)

- A **resource efficient development** approach essentially means a transition of the management of natural resources with a progressive minimization of waste in both consumption and production processes through various policies and measures.
- **SDG 12** related to 'Ensure Sustainable Consumption and Production Patterns' along with the **eight other SDG goals** (2, 6, 7, 8, 9, 11, 14 and 15) have a bearing on resource efficiency. **Government's priority for RE is reflected in various policies/programme** like Make in India, Zero Effect-Zero Defect Scheme, Smart Cities, Swachh Bharat, and Ganga Rejuvenation Mission.
- **Current and Future Projections for India**
  - In 2010, India accounted for 7.2% consumption of globally extracted raw materials. India's average share of material cost in the total production cost was more than 70% and rate of recycling is very low as compared to other developed economies.
  - India consumed 5 billion tonnes of biomass, fossil fuels, minerals and metals in 2010 and was the **third largest consumer** after China (21.5 billion tonnes) and USA (6.1 billion tonnes).
  - **India's demand for total material will more than double by 2030** under the assumption of continued economic growth of 8% till 2030. India would be requiring around 6.5 billion tonnes of minerals to sustain the demand of growing population.

**Assessment of Priority Sectors for enhancing Resource Efficiency in India**

- Effective RE strategy can **save ₹6000 crore** in the manufacturing sector. Nearly **US\$2.7 billion opportunity** can be created from the extraction of steel from the end of life vehicles.
- It is estimated that 1.4 tonnes of iron ore, 0.6-0.7 tonnes of coking coal and around 0.2-0.3 tonnes of fluxes can be saved from recycling of one tonnes of steel scrap and thus indirectly will reduce the production which saves around 16-17 per cent of energy.
- Global E-waste Monitor, 2017 estimated that **India was the fifth largest producer of e-waste** by generating nearly 2 million metric tons of e-waste in 2016 and can earn the value of raw materials to the tune of 55 billion Euros if e-waste was properly mined. **US\$1 billion worth of gold** can be extracted with mining of urban e-waste.
- Effective waste management policies can generate **14 lakh jobs**.

**Six Pillars for a Resource Efficiency Framework in India as recommended by the NITI Aayog’s Status Paper “Circular Economy (CE) and Resource Efficiency (RE)- Current Status and Way Forward”**

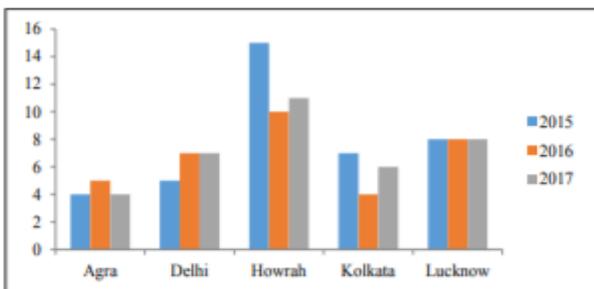
- **Policies**- national policy on RE for all types of resources (biotic, abiotic)
- **Programmes and Mainstreaming** of RE initiatives
- **Regulations** e.g. national coordinating body- Bureau of Resource Efficiency (BRE)
- **Dynamic Recycling Industry**
- **R&D and Technology Development**
- **Capacity Development, Outreach & Monitoring**

**Air Pollution**

Air pollution is a serious issue in India. Government is executing National Air Quality Monitoring Programme (NAMP) under which four major pollutants – Sulphur Dioxide, PM10, PM2.5 and Oxides of Nitrogen are regularly monitored. Major Government Initiatives include -

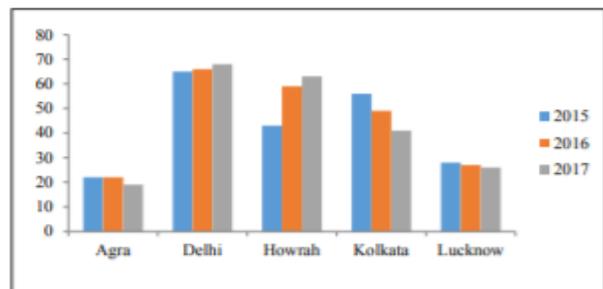
- **National Ambient Air Quality Standards (NAAQS)** are the standards for ambient air quality with reference to various identified pollutant notified by the CPCB under the Air (Prevention and Control of Pollution) Act, 1981. **Major objectives of NAAQS are**
  - to indicate necessary air quality levels and appropriate margins required to ensure the protection of vegetation, health and property
  - to provide a uniform yardstick for assessment of air quality at the national level.

**Figure 8: SO<sub>2</sub> Concentrations in Major Cities**



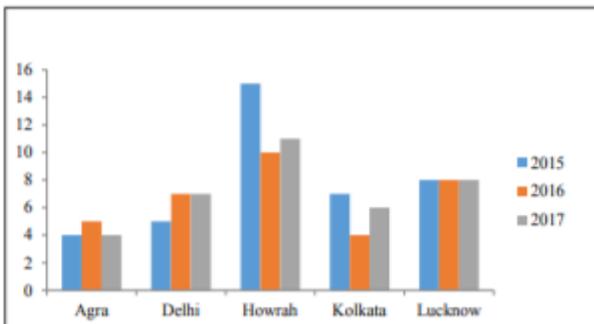
Source: MoEF&CC

**Figure 9: NO<sub>2</sub> Concentrations in Major Cities**



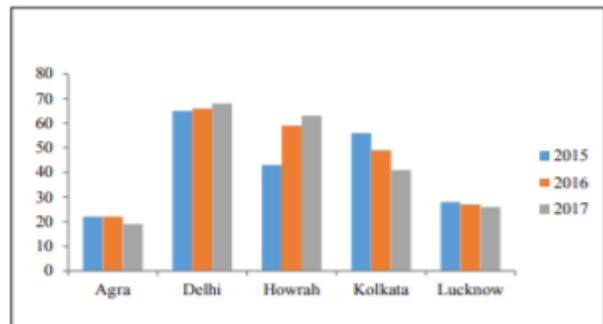
Source: MoEF&CC

**Figure 10: PM<sub>10</sub> Concentrations in Major Cities**



Source: MoEF&CC

**Figure 11: PM<sub>2.5</sub> Concentrations in Major Cities**



Source: MoEF&CC

- **Air Quality Index (AQI)** transforms complex air quality data of various pollutants into a single number (index value), nomenclature and colour thus easily communicate to public. There are **6 AQI categories**- Good, Satisfactory, Moderately Polluted, Poor, Very Poor and Severe.
- **CPCB has issued a comprehensive set of directions** under Air (Prevention and Control of Pollution) Act, 1986 for implementation of **42 measures to mitigate air pollution** in major cities including Delhi and National Capital Region (NCR). This includes control and mitigation measures related to vehicular emissions, re-suspension of road dust and other fugitive emissions, biomass/municipal solid waste burning, industrial pollution, construction and demolition activities and other general steps.
- The Government has notified a **Graded Response Action Plan** for Delhi and NCR, which comprises of the graded measures for each source framed according to the AQI categories and the related broad health advisory.
- **MoEF&CC has launched NCAP in 2019** as a pan India time bound national level strategy. **Overall objective** is comprehensive management plan for prevention, control and abatement of air pollution besides augmenting the air quality monitoring network across the country.
  - The tentative national level target of 20-30 per cent reduction of PM2.5 and PM10 concentration by 2024 is proposed under the NCAP with 2017 as the base year.

### Climate Change

- In response to threats of climate change, the global community has adopted several measures such as **United Nations Framework Convention on Climate Change (UNFCCC)** in 1992, **Kyoto Protocol** in 1997 and the latest most ambitious one being the **Paris Agreement in 2015**, setting the roadmap for post-2020 climate actions.
- The **main aim of the Paris Agreement** is to hold the increase in the global average temperature well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase even further to 1.5°C above pre-industrial levels.
- **Global Warming:** As per the recent Intergovernmental Panel on Climate Change (IPCC) Special Report on Global warming of 1.5°C, human-induced warming reached approximately 1°C (likely between 0.8°C and 1.2°C) above pre-industrial levels in 2017, increasing at around 0.2°C per decade.
  - In line with the global trends, during the year 2018, **annual mean surface air temperature of India was +0.41°C, significantly above normal.**
- **India's Climate Actions:** India has been implementing the climate actions on the basis of the principles of Equity and Common but Differentiated Responsibilities.
  - **National Action Plan on Climate Change (NAPCC)**, launched in 2008, formulated in the backdrop of India's voluntary commitment to reduce emission intensity of its GDP by 20 to 25 per cent by 2020 over 2005 levels. It was also meant to focus on key adaptation requirements and creation of scientific knowledge and preparedness for dealing with climate change.
  - **State Action Plans on Climate Change (SAPCC)** in line with the NAPCC taking into account State's specific issues relating to climate change. So far, 33 States/ UTs have prepared their SAPCCs.
  - **Climate Change Action Programme (CCAP)** has been launched in 2014 with the objective to build and support capacity at central and state levels, strengthening scientific and analytical capacity for climate change assessment, establishing appropriate institutional framework and implementing climate related actions in the context of sustainable development.
  - **National Adaptation Fund on Climate Change** was established in 2015 to meet the cost of adaptation to climate change for the State and Union Territories that are particularly vulnerable to the adverse effects of climate change. The Scheme will continue till 31 March 2020.
- India's **Second Biennial Update Report (BUR)** submitted to UNFCCC in December 2018. The report shows that
  - **Emission intensity of India's GDP came down by 21%** between 2005 & 2014 and its achievement of climate goal for pre-2020 period is on track.
  - A total of 2.607 billion tons of CO2 equivalent of GHGs were emitted from all activities (excluding Land use, Land-Use Change, and Forestry (LULUCF)) in India. Energy sector accounted for 73%, Industrial Processes and Product Use (IPPU) 8%, agriculture 16% and waste sector 3%.

- About 12% of emissions were offset by the carbon sink action of forestland, cropland and settlements.
- **Katowice Climate Package:** Paris Agreement Work Programme (PAWP) was adopted at the 24th session of the UNFCCC Climate Change Conference, held in Katowice, Poland.

#### Katowice Package - Key takeaways

- **Guidance on Nationally Determined Contributions (NDCs)** reflects the principles of the Paris Agreement and recognizes the leadership of developed countries for achieving its objectives.
- **Guidance on adaptation** recognizes the adaptation needs of developing countries. The **differentiation** has been operationalized by incorporating provisions on providing support for adaptation activities of developing country Parties.
- The **Enhanced Transparency Framework** builds upon the existing guidelines while providing flexibilities for developing countries.
- The **guidance on finance provisions** operationalizes the obligation of developed countries in providing means of implementation to developing countries and recognizes the need for climate finance to be new and additional and climate specific.
- Parties have also agreed to initiate the work on setting up the new collective finance goals post-2020 from the floor of US\$100 billion.
- Overarching **framework for technology** recognizes the need for enhanced support towards operationalization of the framework and comprehensively covers all stages of technology development and transfer.

- India engaged positively and constructively in the negotiations **while protecting its key interests** including recognition of **different starting points** of developed and developing countries; **flexibilities** for developing countries and consideration of principles including **equity** and Common but Differentiated Responsibilities and Respective Capabilities (**CBDR-RC**).
- **Climate Finance:** Global action on climate change is contingent on the delivery of timely and adequate finance. Though the international community witnessed various claims by developed countries about climate finance flows, the actual amount of flows is far from these claims. The proposed NDCs would not fructify without sufficient climate finance. The **Three Essential 'S's of Climate Finance** is lacking in the debate on climate actions.

#### Three Essential 'S's of Climate Finance

- **Scope:**
  - Climate finance should **support both the adaptation and mitigation activities** of the developing countries in accordance with the country needs and priorities.
  - Some more important parameters such as how to treat private climate finance flows that are 'mobilized' or 'leveraged', the clarity on "new and additional" also need to be understood in this context.
- **Scale:**
  - The climate finance requirements of developing countries are likely to be enormous. People in poorer countries are on average five times more likely than people in rich countries to be displaced by extreme weather events.
  - By mid-century, the costs of climate change to developing countries are estimated to exceed **US\$1trillion per year**, even if global average temperature remains below 2°C.
- **Speed:**

As of February 2019, the pledge and approval of multilateral climate change funds shows lagged performance. As against the US\$100 billion goal, the aggregated climate finance, estimated as net climate-specific assistance is far lower than the reported climate finance with new climate-specific assistance may be just US\$16-21 billion.

- **India's Nationally Determined Contribution (NDC):** India's NDC outlines the post-2020 climate actions India intends to undertake under the Paris Agreement on climate change.
  - India would need around US\$206 billion (at 2014-15 prices) between 2015 and 2030 for implementing adaptation actions in key areas like agriculture, forestry, fisheries infrastructure, water resources and ecosystems.
  - NDC further provides the preliminary total estimates for meeting India's climate change actions between now and 2030 which is at US\$2.5 trillion.
- **Developments in the Sustainable Finance Arena:**
  - Along with domestic public budgets and international public finance, resources would have to be mobilized from a variety of sources, in particular, private sector.

- **Capital market products** are required to free-up the banks' balance sheet capacity and allow them to underwrite loans to meet the accelerating demands for new sustainable investments. Possible capital market structures for sustainable finance may include **Real Estate Investment Trusts (REITs)** and **Infrastructure Investment Trusts (InvITs)**.
- Globally, the **green bond market** has seen remarkable growth over the past 5 years. In India, **SEBI has issued regulations for issuance of green bonds**. This led to India standing at 11th position in global country ranking and accounting for 33% of the Certified Climate bonds by number in emerging markets.

### International Solar Alliance (ISA)

- It is the first **treaty-based** International Intergovernmental Organization launched by India and France in 2015 in Paris and entered into force on 6 December 2017.
- As on June 2019, 75 countries have signed and out of which, 52 countries have ratified the ISA Framework Agreement. The first Assembly of the ISA was convened on October 3, 2018.
- It has launched **five programmes** so far: Scaling Solar Applications for Agriculture Use; Affordable Finance at Scale; Scaling Solar Mini Grids; Scaling Solar Rooftop, and Scaling Solar in E-mobility and Storage.
- ISA from scratch has now transformed into an action oriented international organization, scaling newer heights under the collective leadership and supervision of the member countries.

#### ISA - Key Initiatives

- ISA's engagement with Indian Diplomatic Missions in member countries, financing by the Export Import Bank of India, among others, resulted in development of a portfolio of 27 solar projects in 15 countries. These projects are being supported with India's concessional financing.
- **"Action to Transaction"** meets, an innovative platform where project developers and bankers were brought together, facilitated 238 projects in ISA countries.
- A task force was constituted to design a **Common Risk Mitigation Mechanism** to reduce risks and financial cost of solar projects. Also, the World Bank and Agence Française de Développement (AFD) are developing a joint **Global Solar Risk Mitigation Initiative (SRMI)**, an integrated approach to tackle different issues.
- **ISA has forged financial partnerships** with various MDBs, UN agencies, Climate Parliament, European Commission, Commonwealth Secretariat and other International and Intergovernmental organizations.
- **ISA Solar Award** has been instituted for Solar Scientists doing extraordinary work across ISA countries with a onetime corpus contribution of US\$1.5 million from the Government of Haryana.

#### Way forward

- Given the myriad developmental challenges faced by the developing economies, **lack of adequate resources is a major challenge** in achieving the SDGs and international cooperation is essential in achieving these goals.
- With increasing demand for resources to cater to the different developmental needs, **policies need to nudge economic agents** towards achieving the maximum output from the available resources. India's policies have already taken the correct initiatives in this direction.
- A substantial **scaling up of financial resources and technology** are needed to implement this target by 2030. The fulfillment of pledges by developed countries through provision of 'new and additional' financial resources is an important contingent factor.
- It is time for the global community to exhibit the requisite momentum to act upon their responsibilities on establishing the enabling environment for climate action.

# CHAPTER 6: EXTERNAL SECTOR

## Introduction

India's macroeconomic situation on the external side continues to be stable. Although the current account deficit to GDP ratio has started to increase lately, the external indebtedness continues to be on a declining path.

Exports have become more competitive due to depreciation in Real Effective Exchange Rate.

## Global Economic Environment

- As per the World Economic Outlook (WEO), the global economy is expected to slowdown from **3.6%** in 2018 to **3.3%** in 2019. The **main reasons** behind this global slowdown are-
  - **Trade tensions-** Growing trade protectionism in the world, especially heightened US-China trade tensions.
  - **Temporary shocks-** such as the federal government shutdown in the United States and production problems in the automotive sector in Germany.
  - **Impact:**
    - ✓ Due to this **slowdown** the advanced countries have persisted with their accommodative monetary policy and as a result, **portfolio investments into emerging markets has escalated**, making their currencies stronger and imports cheaper.
    - ✓ The trade- protectionism will divert bi-lateral trade imbalances from one country to another, as the root cause of trade deficits is the macroeconomic imbalance.
- Thus, the WEO advises that the countries should resolve trade disagreements cooperatively, without raising distortionary barriers, especially when there is rise in prices of commodities and crude oil (due to US-Iran crisis) and many emerging market economies like India are dependent on crude imports.
- There has been a spatial shift in the nature of BoP balances as well in the last few years.
  - Advanced economies had a current account deficit in 2011, which has been reducing consistently since then and turned into current account surplus in 2017.
  - Emerging and developing economies on the other hand slipped from their current account surplus position of US\$379.0 billion in 2011 to US\$0.1 billion in 2017.
  - This reflects the **shifting of the consumption hub of the world from the advanced to the less advanced countries.**

## India's Balance of Payments Developments

- **Current Account Developments-**
  - **Current Account Deficit-** though it is projected at 2.4% of GDP in 2018-19, up from 1.8% in 2017-18, this is within reasonable levels.
    - ✓ The **widening of the current account deficit** has been driven by a **deterioration of trade deficit** from 6.0 per cent of GDP to 6.7 per cent across the two years.
    - ✓ **Rise in crude prices and a decline in the growth of merchandise exports** have led to the deterioration of trade deficit.
    - ✓ However, the acceleration in the **growth of remittances has offset the deterioration** of the current account deficit.
    - ✓ In funding the current account deficit, the **total liabilities-to-GDP ratio**, inclusive of both debt and non-debt components, **has declined** from 43 per cent in 2015 to about 38 per cent at end of 2018.
    - ✓ The share of foreign direct investment has risen and that of net portfolio investment has fallen in total liabilities, thereby reflecting a transition to more stable sources of funding the current account deficit.
  - **Broad Trends in Merchandise Trade:** Growth of both merchandise exports and merchandise imports accelerated from 2016-17 to 2017-18. However, thereafter the annual growth rate of both merchandise exports and imports fell in 2018-19.
    - ✓ The growth in merchandise exports mainly resulted from high growth in Petroleum, Oil & Lubricants (POL) exports.

✓ **Petroleum products continue to have the largest share in India's export basket** at 14.1 per cent in 2018-19 followed by Pearl and Precious Stones, Drug Formulations, Gold and Jewellery, Iron and Steel etc.

✓ The growth in merchandise imports can also be attributed to a sharp rise in growth rate of POL imports.

✓ **Crude petroleum continues to be the largest imported commodity** in 2018-19 with a share of 22.2 per cent in the import basket, followed by Gold/Silver; Pearl, Precious, Semi-Precious Stones; and Petroleum Products.

○ **Trends in invisibles:**

✓ Of three main components of net invisibles, net services accelerated initially in 2017-18 before decelerating in 2018-19.

- The contribution of net services to financing merchandise trade deficit has fallen from 62.2 per cent in 2016-17 to 43.7 per cent in 2018-19, reflecting a muted performance of service exports in recent times.
- Software services, accounting for about 40 per cent of total services receipts, along with financial services, have been the main drivers in the service exports.

✓ **Net Private transfer receipts**, mainly representing remittances by Indians employed overseas, increased by 12.4 per cent in 2018-19 (P) as compared to 11.5 per cent in 2017-18.

- **India remained a top remittance recipient country** in 2018, followed by China, Mexico, Philippines, and Egypt, with remittance inflows peaking at all-time high at US\$78.6 billion.

○ **Developments in Capital Account of BOP:** During 2018-19, **net foreign investment declined**. Robust foreign direct investment (FDI) inflows, were more than outweighed by withdrawals under portfolio investment reflecting an escalation of global risk aversion. As a proportion of GDP, net FDI fell from 1.6 per cent in 2016-17 to 1.1 per cent in 2017-18, before rising to 1.2 per cent in 2018-19.

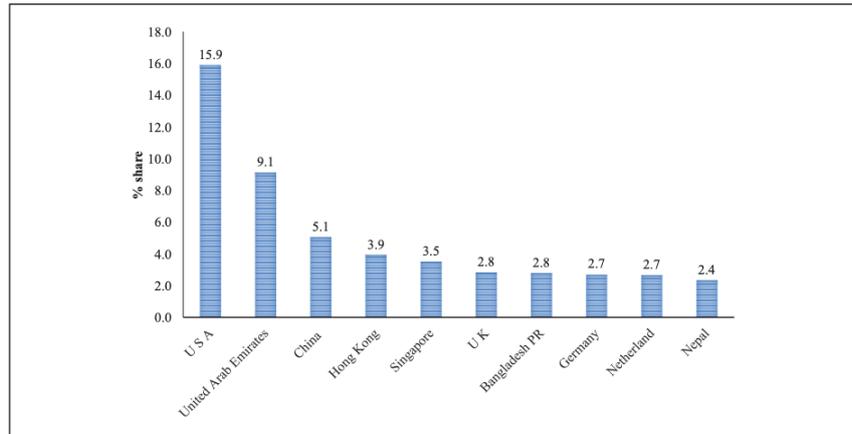
○ **Net External Commercial Borrowings (ECBs) also experienced a net inflow** during 2018-19 (April-December) as against a net outflow in the corresponding period of the previous year, reflecting in part a possible credit crunch in the country.

○ **Net NRI deposit increased.**

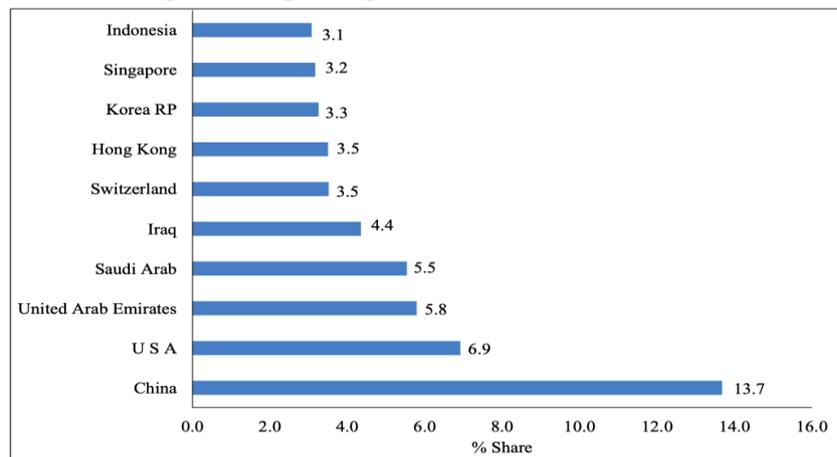
○ Overall, **net capital flows fell short of financing CAD** resulting in depletion of foreign exchange reserves by US\$17.5 billion during April-December 2018.

○ Over a longer period **a change in the sources of funding the CAD is discernible**. In 2009-14 net portfolio investment funded 45.6 per cent of current account deficit but declined to 17.1 per cent in 2014-19. The financing of the current account deficit in 2014-19 thus became less vulnerable to capital flight as compared to the previous period.

**Figure 34: Top 10 Export Destinations of India in 2018-19**

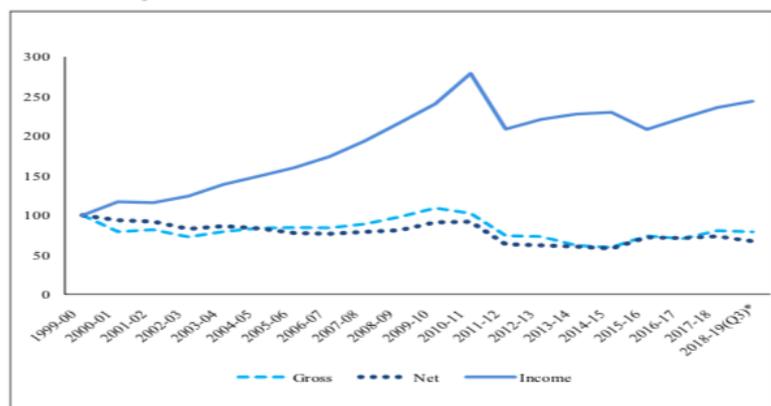


**Figure 35: Top 10 Import Sources of India in 2018-19**



- **Forex reserves:** India's foreign exchange reserves stood at US\$422.2 billion as on June 14, 2019. The **foreign exchange reserves in nominal terms decreased** during April-December 2018 as against an increase during the same period of the preceding year.
  - ✓ Forex reserves had earlier experienced decline in various years such as 2011-12, 2012-13 etc.
  - ✓ **Among the major economies running current account deficit, India is the largest foreign exchange reserve holder and eighth largest** among all countries of the world.
- **External Debt-** India's External Debt was US\$521.1 billion at end-December 2018, 1.6 per cent lower than its level at end-March 2018.
  - The long-term debt declined by at end-December 2018 over end-March 2018, and had a share of 80.1 per cent.
  - Short term debt grew by 1.7 per cent in end-December 2018 compared to end-March 2018, primarily due to increase in trade related credits.
  - Among the top twenty developing debtor countries in 2017, **India's external debt to Gross National Income (GNI) ratio at 19.8 per cent was fourth lowest**, while China continues to have the lowest ratio of 14 per cent.
  - In terms of the **foreign exchange reserves cover to external debt, India's position is fifth highest at 75.9 per cent**, whereas India has fifth lowest short-term debt to foreign exchange reserves at 25.1 per cent among the top twenty developing debtor countries.
  - Though **India is the third largest debtor country** (in absolute amounts) among developing countries (after China and Brazil), its **average-age of debt is much higher** given that its ratio of short-term debt to total debt is only about 19.0 while that of China is 69 per cent. **Higher age of debt reduces the rollover risk.**
  - **Debt- service ratio:** Debt Service ratio is a measure of strain on BoP due to servicing of debt service obligations.
    - ✓ Debt Service ratio increased till 2016 and then declined continuously since 2016 from 8.8 per cent to 8.3 per cent in 2017 to 7.5 per cent in 2018.
    - ✓ The declining ratios of debt service, total external debt to exports and debt service to exports in 2016- 17 and 2017-18 may be seen as favourable for India.
  - **Net International Investment Position-** The International Investment Position (IIP) is a statistical statement that shows at a point in time the value of financial assets of residents of an economy that are claims on non-residents or are gold bullion held as reserve assets; and the liabilities of residents of an economy to non-residents (International Monetary Fund (IMF)).
    - ✓ The difference between the assets and liabilities is the net position in the IIP and represents either a net claim on or a net liability to the rest of the world.
    - ✓ A **positive NIIP** value indicates a nation is a **creditor nation**, while a negative value indicates it is a debtor nation.
    - ✓ The total liabilities in the IIP statement is a more comprehensive measure of external indebtedness than merely external debt as the former also includes net equity inflows, which is used for financing the CAD.
  - However, as a percentage of GDP, IIP liabilities, which had earlier increased from 2011 to 2015, have been declining since then.
- **Exchange Rate-** The **Indian rupee was one of the least volatile Emerging Market (EM) currencies** during 2017-18. Apart from rupee depreciating by 7.8 per cent vis-à-vis US dollar in 2018-19, it also depreciated against other major currencies such as yen, Euro and Pound Sterling.
  - **Nominal Effective Exchange Rate (NEER)-** In terms of NEER, rupee depreciated by 7.1 and 5.6 per cent respectively in the fiscal year 2018-19 over 2017-18.

Figure 29: Terms of Trade (Base Year 1999-2000)



- **Real Effective Exchange Rate (REER)**- In terms of REER, rupee depreciated by 5.8 per cent and 4.8 per cent respectively in 2018-19 over 2017-18.
- **Terms of Trade (ToT)**- Commodity or net terms of trade (NTT) of a country is the ratio of the unit value (price) of export to the corresponding unit value (price) of import measured relative to a base year.
  - ✓ If this ratio increases, it implies that the country, for every unit of exports it exchanges for imports, is receiving relatively more; if the ratio decreases then the country is receiving relatively less.
  - ✓ Two other commonly used terms of trade indices are gross terms of trade (GTT) and income terms of trade (ITT).
    - The GTT is a ratio of total quantity of imports to that of exports of a given country.
    - The ITT is the value of exports divided by the unit value (price) of imports to reflect how better or worse a country's purchasing power to imports has become.
    - ITT comes out to be the most relevant ToT indicator for developing countries as they are more worried about changes in their capacity to import particularly when they are heavily dependent on commodity imports, such as India being dependent on crude imports.

### Developments in Trade Policy

- India has bilateral trade arrangements with all major regional groupings.
  - In Europe, it is a part of **European Free Trade Association (EFTA)**, consisting of Switzerland, Norway, Iceland and Liechtenstein.
  - Among SAARC countries, India and Bangladesh have a bilateral trade agreement and both countries are exploring the possibility of entering into a bilateral Comprehensive Economic Partnership Agreement (CEPA).
  - With Sri Lanka, India has India-Sri Lanka Free Trade Agreement (ISLFTA), under which duty-free access for almost all the products except a few is provided.
  - Among Latin American countries, India has Preferential Trade Agreements (PTA) with MERCOSUR (Argentina, Brazil, Paraguay and Uruguay) and Chile.
- **Trade Facilitation-**
  - India ratified the **WTO Agreement on Trade Facilitation (TFA)** in 2016 and subsequently constituted a **National Committee on Trade Facilitation (NCTF)** with the Cabinet Secretary of India as the Chair. Taking this further, government has taken following steps-
    - ✓ **Setting up a Steering Committee-** co- chaired by the Commerce Secretary and the Revenue Secretary to coordinate overall implementation of India's notified facilitation commitments
    - ✓ **Establishment of a National Single Window system** to route all import related formalities viz., examination, sampling, clearance, etc.
    - ✓ **E-Sanchit Project-** for paperless filing of import/ exports documents.
  - Consistent trade facilitation efforts have resulted in substantive improvement of India's performance in **Trading Across Borders indicator** (Ease of Doing Business, World Bank) from 146 in 2017 to 80 in the year 2018.
- **Trade Related Logistics**
  - As per the World Bank's 2016 **Logistics Performance Index**, India jumped to 35th rank in 2016 from 54th rank in 2014 in terms of overall logistics performance. In 2018, India stood at 44th rank.
  - Experts predict that the logistics sector can be the largest job creator by 2022. The sector currently provides employment to more than 72 crore people in the country.
  - Government of India has announced a **draft National Logistics Policy** for which a **National Logistics Action Plan** is being developed. Various logistics related initiatives have been taken, such as-

#### Key Agreements, which India is negotiating are-

- **Preferential Trade Agreement (PTA)** with Iran, Eurasian Economic Union (EaEU)
- **New Economic and Technology Cooperation Agreement (ETCA)** with Sri Lanka.
- **ASEAN India Trade in Goods Agreement (AITIGA)** with ASEAN.
- **Free Trade Agreement (FTA)** with Georgia.
- **Comprehensive Economic Policy Agreement (CEPA)** with Canada, Australia, New Zealand.
- **Comprehensive Economic Cooperation and Partnership Agreement (CECPA)** with Mauritius and Israel.



- ✓ Launching of the Bharatmala Yojana, the Sagarmala Yojana and the Dedicated Freight Corridors to develop infrastructure for logistics.
- ✓ 111 waterways have been identified for development.
- ✓ Infrastructure status has been given to select logistics activities like warehousing, cold chains, Multi modal logistics parks and slurry pipelines.
- ✓ Subsidy is provided to develop cold chains and pack houses.
- ✓ Introduction of GST has reduced the truck turnaround time and is a major stimulus to pick up industrial production.
- ✓ Outsourcing and automation of non-core activities like warehousing is allowing main players to focus on improving efficiency of transportation.
- Driving logistics cost down from estimated current levels of 13-14 per cent of GDP to 10 per cent in line with best-in class global standards is essential for India to become globally competitive.
- **Anti Dumping and Safeguard Measures**
  - India has been conducting **anti-dumping investigations** on the basis of applications filed by the domestic industry with prima facie evidence of dumping of goods in the country, injury to the domestic industry and causal link between dumping and injury to the domestic industry.
  - The countries involved in these investigations are China PR, Hong Kong, Korea, Germany, EU, USA, Malaysia, South Africa, Thailand, Brazil among others.

### Outlook

- The WEO forecasts **acceleration of world output** on the basis of **assumptions** like continued accommodative monetary policy stance in advanced countries, fiscal stimulus in China and de-escalation of trade tensions between the US and China.
- Even if the **crude prices** increase due to growing world output, it may not impact India since the latter will also favourably impact India's exports.
- India's current account deficit (CAD) may remain stable as-
- Government policies are expected to **further lift restrictions on FDI inflows**, which will continue to increase the stability of sources funding the CAD.
- Even if consumption slows down in the economy, increase in investment and exports may become the new drivers of the Indian economy.

# CHAPTER 7: AGRICULTURE AND FOOD MANAGEMENT

## Introduction

- **Agriculture and allied sectors** are critical in terms of employment and livelihoods for the small and marginal farmers, who dominate the agriculture ecosystem in India. To attain the Sustainable Development Goals (SDGs) of ending poverty and bringing in inclusive growth, activities related to agriculture need to be closely integrated with the SDG targets.
- With **fragmentation of agricultural holdings and depletion of water resources**, the adoption of a resource-efficient, **ICT based climate-smart agriculture** can enhance agricultural productivity and sustainability.
- The agriculture landscape has to undergo tremendous transformation and **shift from the philosophy of 'green revolution led' productivity to 'green methods' led sustainability in agriculture** in order to achieve a safe and food secure future.

## Overview of Agriculture and Allied Sectors

- **GVA in Agriculture:** The Gross Value Added (GVA) in agriculture **improved from a negative 0.2 per cent in 2014-15 to 6.3 per cent in 2016-17 only to decelerate to 2.9 per cent in 2018-19.**
  - While the crops, livestock and forestry sector showed fluctuating growth rates over the period from 2014-15 to 2017-18, the fisheries sector has shown a continued rapid growth from 4.9 per cent in 2012-13 to 11.9 per cent in 2017-18.
  - **Average annual growth rate in real terms** in agricultural & allied sectors has remained at around **2.88 per cent during 2014-15 to 2018-19.**
- **Share of agriculture, forestry & fishing sector in GVA:** has seen a steady decrease over the years from 15.4 per cent in 2015-16 to 14.4 per cent in 2018-19. This decline was mainly due to decline in the share of crops in GVA.
- **Gross Capital Formation (GCF) in Agriculture & Allied Sector:** GCF as a percentage of GVA saw a rise to 17.7 per cent in 2013-14 but declined thereafter to 15.2 per cent in 2017-18.
  - The share of **public investment in agriculture and allied sectors registers an increase** from 2014-15 and maintains an upward trend till 2016-17 whereas the **share of private investment in GCF shows a decline during this period.**
- **Pattern of agricultural land holdings in India:** As per the **Agriculture Census (2015-16):**
  - the number of **operational holdings** (land put to agricultural use), **has increased** to 14.6 crore (2015-16) from 13.8 crore (2010-11).
  - Share of **marginal holdings** (less than 1 ha) in total operational land holdings **increased** to 68.5 % in 2015-16, while the share of **small holdings** (1 ha to 2 ha) **decreased** to 17.7 % during this period.
  - Share of **Large holdings** (above 4 ha) **decreased** to 4.3 %.
- **Growing Number of Women Farmers:** The share of operational holdings cultivated by women has **increased** to 13.9 per cent in 2015-16.

## Key Factors for Bringing Resource Efficiency for small and marginal farmers:

- **Increasing Irrigation Water Productivity (IWP) in Agriculture:** Almost 89 per cent of groundwater in India is extracted for irrigation. By 2050, India will be in the global hot spot for 'water insecurity'.
  - The **cropping pattern in India is highly skewed towards crops that are water intensive.** This is due to incentive structures like MSP, heavily subsidized electricity, water and fertilizers.
    - ✓ The water guzzlers, **paddy and sugarcane**, consume more than 60 per cent of irrigation water available in the country, thereby reducing water availability for other crops.
  - There is a **divergence between land productivity and irrigation water productivity** in the major sugarcane producing States in India reflecting the urgent need to focus on irrigation water productivity to raise agricultural productivity
  - **Adoption of micro-irrigation systems (MI)** is one of the possible ways to improve water use efficiency, it has been seen that the States with penetration of micro irrigation systems and

improved adoption of micro irrigation systems have almost 40 to 50 per cent savings in energy and fertiliser consumption

- Focus in agriculture should shift from **'land productivity' to 'irrigation water productivity'**. Therefore, devising policies to incentivise farmers to adopt efficient ways of water use should become a national priority to avert the looming water crisis.

- **Economizing the Use of Fertilizers and Pesticides:** Since 2002, the fertilizer consumption in India has continually increased till 2011. However, the fertiliser consumption has been declining since then.

According to Department of Fertilisers, **the declining fertilizer response ratio in Indian agriculture is due to**

- inadequacy and imbalance in fertiliser use,
- increasing multi-nutrient deficiency,
- lack of farmers awareness about balanced plant nutrition and
- poor crop management.

**Declining fertilizer response ratio**

It is an indicator of declining responsiveness of soil fertility to fertiliser application.

- The improvement in fertilizer use efficiency requires farmers' knowledge regarding the right product, dosage, time and method of application. **Some of the suggested measures are:**

- the use of optimal dose based on soil health status,
- promotion of neem-coated urea,
- promotion of micronutrients,
- promotion of organic fertilizers, and
- promotion of water-soluble fertilizers.

- **Turning to Organic and Natural Farming:** The Government has been promoting organic farming in the country through the schemes such as **Paramparagat Krishi Vikas Yojana (PKVY) and Rashtriya Krishi Vikas Yojana (RKVY)**. In the revised guidelines of PKVY scheme during the year 2018, various organic farming models like **Natural Farming, Vedic Farming, Cow Farming, Homa Farming, Zero Budget Natural Farming** have been included.

- **Zero Budget Natural Farming (ZBNF):** It's main aim is elimination of chemical pesticides and promotion of good agronomic practices. It aims to sustain agriculture production with eco-friendly processes in tune with nature to produce agricultural produce free of chemicals. Less water is required under ZBNF and it is a climate friendly agriculture system. Some of the States which are progressively practicing ZBNF are Karnataka, Himachal Pradesh and Andhra Pradesh.

- **Adopting Appropriate Technologies for Smallholder Farms:** In smallholder farms, resource efficiency can be brought about through adoption of appropriate technologies. However, use of technology, investment in costly farm machinery, or scaling up the existing technology may not be economically feasible for small and marginal farmers. Hence, **there is need to promote use of environment friendly automated farm machinery tools** suited to small scale operations. Some of the measures are:

- The **Custom Hiring Centers (CHCs)** can be set up to promote use of high-tech machinery for the mechanization of small and marginal farm holdings, especially in difficult terrains.
- In the context of poor infrastructure, **adoption of ICT in agriculture** will promote market access, facilitate financial inclusion and contribute significantly to early warning signals that are critical for the development of smallholder community.
- Technology can play a critical role in **bridging the information gaps** that prevail in agricultural markets. The use of blockchain technology in the coffee market represents one such example.

- **Improving Infrastructure and Access to Markets:** A combination of enhancing rural infrastructure to improve connectivity, ICT to provide timely information about prices, aggregation and storage facilities can help small and marginal farmers in overcoming the marketing bottlenecks.

- **Role of Extension Services:** A Report on **Review of Agricultural Extension in India, 2010** by IFPRI had highlighted the increasing need to share knowledge and skills with the farmers. Therefore, a greater scope to improve services by **Krishi Vigyan Kendra (KVKs) and agricultural universities** in agriculture advisory services.

- There has been an increasing trend in the expenditure on agricultural research and education as a percentage of total agricultural GVA with an exception of 2017-18.

- **Agricultural Credit:** The access to timely credit or finance is a critical determinant of profitability of agriculture. Regional distribution of agricultural credit is highly skewed. Distribution of **agricultural credit is low in North Eastern, Hilly and Eastern States.**

- **Allied Sectors:** The policies should focus on diversification of livelihoods through promotion of allied sectors.

- **Animal Husbandry and Dairying:** India

ranks first in milk production, accounting for **20 per cent of world production.**

- ✓ Milk production in India has been increasing steadily over the years to 176.3 million tonnes in 2017-18.

- ✓ All India per capita availability of milk is 375 grams per day.

- **Small Ruminant Sector: Sheep and goat are collectively known as small ruminants.**

- India supports 16.1 per cent of the world's goat population and 6.4 per cent of its sheep (FAO).

- As per the **70th round of NSSO, livestock rearing** is a principal source of income to 3.7 per cent of the agricultural households.

- **Fisheries Sector:** India is the second largest fish producer with a total production of 13.7 million MT in 2018-19 of which 65 % was from inland fisheries. **Steps taken:**

- ✓ Separate Department of Fisheries created.

- ✓ Umbrella scheme of **'Blue Revolution: Integrated Development and Management of Fisheries'**.

- ✓ Creation of the **Fisheries and Aquaculture Infrastructure Development Fund (FIDF).**

**Agricultural Marketing and Farmer Friendly Reforms Index (AMFFRI)**

- It was launched by NITI Aayog in 2016.
- It **seeks to rank States and UTs based on implementation of seven provisions proposed under model APMC Act** like joining e-NAM initiative, special treatment to fruits and vegetables for marketing and level of taxes in mandis.
- These indicators **reveal ease of doing agribusiness as well as opportunities for farmers to benefit from modern trade and commerce** and have wider option for sale of her/his produce.
- These indicators also **represent competitiveness, efficiency and transparency in agri-markets.**
- The second area of reforms captured by the index include **facilitation and liberalization of land lease.**
- The third area included in the index represent **freedom given to farmers for felling and transit of trees grown on private land.**
- No state in the country has implemented the entire set of market reforms. **Maharashtra achieved first rank** in implementation of various reforms followed Gujarat, Rajasthan and Madhya Pradesh.
- Almost two third States/UTs could not reach even halfway mark of reforms score. Major States like U.P., Punjab, West Bengal, Assam, Jharkhand, Tamil Nadu and J&K are in this group.
- Some of states are no given ranking based on AMFFRI as some States/UTs do not have APMC Act.

**Schemes/Initiatives to Improve Productivity of Livestock and Dairy Sector**

- **Rashtriya Gokul Mission (RGM):** To undertake breed improvement programme for indigenous breeds so as to improve the genetic makeup and increase the stock.
- **E Pashu Haat Portal:** For connecting breeders and farmers regarding availability of quality bovine germplasm.
- **National Livestock Mission:** For intensive development of livestock, especially small livestock along with adequate availability of quality feed and fodder.
- **Livestock Health & Disease Control Scheme:** Assistance provided for prevention and control of animal diseases like Foot and Mouth Disease (FMD) etc.
- **Dairy Development:** For strengthening infrastructure for production of quality milk, procurement, processing and marketing of milk and milk products through the following dairy development schemes.

**Food Security and Food Management in India:**

As per the FAO, 2018, Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and to ensure an active and healthy life.

- **Food Security: The Global Food Security Index (GFSI), 2018** considered **four core issues** of food security: **Affordability, Availability, Quality & safety** and **Natural resources** and **resilience**. It's major goal is to assess in a timely manner which countries are most and least vulnerable to food insecurity. India ranks No.1 in Nutritional standards. However, overall India ranks **76 out of 113** countries.

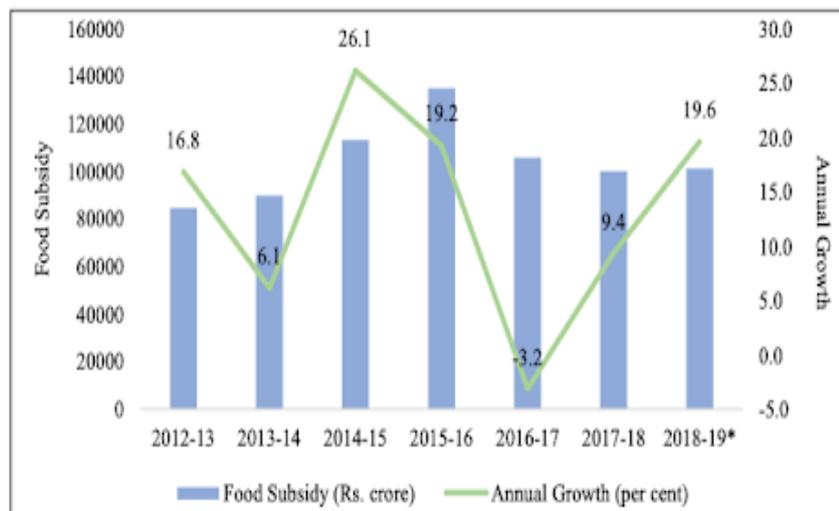
**Draft National Inland Fisheries and Aquaculture Policy (NIFAP), 2019**

- **Inland fisheries:** The policy measures recommended:
  - conserving indigenous resources, and restoring natural ecosystem of rivers, wetlands etc.
  - transferring management of fisheries in manmade reservoirs to the state fisheries departments.
  - development of fisheries in the Himalayan and north-eastern states.
- **Aquaculture:** Measures recommended:
  - developing state and area-specific action plans,
  - redefining land use categories to include fisheries and aquaculture as components of agriculture,
  - encouraging private sector in production of seed, feed and other aquaculture inputs.

- India's **food security challenges** lie in the areas of low GDP per capita, sufficiency of supply, public expenditure on R&D and protein quality.
- The Government specifically undertakes the following **measures to ensure food security:**
  - ✓ Announcing Minimum Support Prices and Central Issue Price
  - ✓ Undertake procurement of food grains through FCI and decentralised procurement by State Agencies
  - ✓ Maintain buffer stocks; and
  - ✓ Open market sale of wheat and rice to check inflation.

- **MSP and Food grains Procurement:** The Minimum Support Price (MSP) is announced for 22 crops before the sowing season. In 2018-19, the government raised the MSP of both kharif and rabi crops to ensure a return of at least 50 per cent above

**Figure 11: Expenditure on Food Subsidy (₹ Crore) & Annual Growth Rate (%)**



the cost of production to enhance farmers' income. **Issues with MSP and food procurement include:**

- In various states like Punjab, Haryana, Chhattisgarh etc. where MSP procurement is well established, there arise **problems in storage of foodgrains**.
  - ✓ Hence, **the government tries to liquidate excess stocks** through open market sale to bulk buyers above the reserve price, which equals the MSP plus the procurement cost. **But bulk buyers prefer wheat over rice.**
- Also, Exports of food grains by FCI at prices lower than the reserve price would effectively imply and export subsidy. Moreover, this would expose India to **disputes in the multilateral trade framework**.
- Also it has been seen that in majority of the states, **farmers are unaware of the MSP announcement before the sowing season.**
- In certain cases, though aware of the MSP, **the absence of procurement centres in the villages, transportation costs, reluctance of mill owners to buy small quantities** from the farmers remain stumbling blocks.
- **Food Subsidy:** Food subsidy comprises of two main components.
  - The first component includes **subsidy provided to the Food Corporation of India (FCI) for procurement and distribution of wheat and rice under the National Food Security Act (NFSA),**

**2013 and other welfare schemes** and for maintaining the buffer stock of food grains as a measure of food security.

- The second component comprises **subsidy provided to States undertaking decentralized procurement**.
- For sustainability of food security operations, the issue of burgeoning food subsidy bill needs to be addressed.
- **Computerization of Targeted Public Distribution System (TPDS):** The TPDS is operated under the **joint responsibility** of the Central and State/UT Governments.
  - The **Central Government** is responsible for procurement, allocation and transportation of food grains **upto the designated depots of the FCI**.
  - The **State Governments** are responsible for allocation and distribution of food grains **involving identification of eligible beneficiaries/ families, issuance of ration cards to them and supervision and monitoring of functioning of Fair Price Shops (FPSs)**.
  - **To modernize and bring about transparency in the TPDS operations**, the Central Government is implementing the Scheme '**End-to-end Computerisation of TPDS Operations**' on cost sharing basis with the States/UTs.
  - Through technology and digital intervention, the TPDS has become more transparent at the FPS. However, there needs to be holistic monitoring along the supply chain to completely prevent the diversions and leakages of foodgrains and also to maintain the quality of foodgrains distributed through the FPS.

#### **ACTION PLAN FOR DOUBLING THE INCOME OF FARMERS BY 2022**

- The Government had constituted an Inter-Ministerial Committee to examine issues relating to Doubling of Farmers' Income (DFI) and recommend strategies. The **Committee has identified seven sources of income growth** viz,
  - Improvement in crop productivity,
  - Improvement in livestock productivity,
  - Resource use efficiency or savings in the cost of production,
  - Increase in the cropping intensity,
  - Diversification towards high value crops,
  - Improvement in real prices received by farmers and
  - Shift from farm to non-farm occupations.
- **Several initiatives have already been rolled out on the recommendations of DFI Committee which inter-alia include**
  - Advocating **progressive market reforms** through the State Governments
  - **Encouraging contract farming** through the State Governments by promulgating of Model Contract Farming Act
  - **Up-gradation of Gramin Haats** to work as centers of aggregation and for direct purchase of agricultural commodities from the farmers,
  - **e-NAM** to provide farmers an electronic online trading platform,
  - **Distribution of Soil health Cards** to farmers so that the use of fertilizers can be rationalized,
  - Increase water efficiency through **Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)**- "Per drop more crop",
  - Better insurance coverage to crops for risk mitigation under **Pradhan Mantri Fasal Bima Yojana (PMFBY)**, providing total interest subvention up to 5 per cent on short-term crop loans up to Rs 3 lakh, thus making loan available to farmers at a reduced rate of 4 per cent per annum and
  - Extended the facility of **Kisan Credit Card (KCC) for animal husbandry and fisheries related activities**.
  - **Increase in the Minimum Support Price (MSPs) for all Kharif & Rabi crops for 2018-19 season** at a level of at least one and half times of the cost of production.
  - The Government has decided to implement a **new Central Sector Scheme** for providing **old age pension** of Rs 3000/- to the eligible small and marginal farmers on attaining the age of 60 years. The scheme aims to cover around 5 crore beneficiaries in the first three years. It would be a voluntary and contributory pension scheme, with entry age of 18 to 40 years.

# CHAPTER 8: INDUSTRY AND INFRASTRUCTURE

## Indian Industry: An overview

Industry plays a decisive role in determining the overall growth of an economy. India, being home to more than 133 crore people, needs to build a robust industry with a **buoyant and resilient infrastructure**.

- The industrial sector performance during 2018-19 has improved as compared to 2017-18. The growth of industry real Gross Value Added (GVA) was higher at 6.9 per cent in 2018-19 as compared to 5.9 per cent in 2017-18.
- **Index of Industrial Production (IIP):** The industrial growth rate in terms of Index of Industrial Production (IIP) during 2018-19 stood at **3.6 per cent as compared to 4.4 per cent** growth rate in 2017-18. The moderation in 2018-19 has been mainly due to **subdued manufacturing activities** due to
  - **slower credit** flow to medium and small industries,
  - **reduced lending by NBFCs** owing to liquidity crunch,
  - tapering of domestic demand for key sectors such as **automotive sector, pharmaceuticals, and machinery and equipment,**
  - **volatility in international crude oil prices** etc.
- **Gross Capital Formation in Industrial Sector:** The rate of growth of Gross Capital Formation (GCF) in industry has registered a sharp rise from (-) 0.7 per cent in 2016-17 to 7.6 per cent in 2017-18.

### About IIP

- The IIP is a measure of industrial performance. It assigns a weight of:
  - 77.63 % to **manufacturing** sector,
  - 14.37 % to **mining** sector and
  - 7.99 % to **electricity** sector.
- The Index of eight core industries measures the performance of **Coal, Crude Oil, Natural Gas, Petroleum Refinery Products, Fertilizers, Steel, Cement and Electricity**.
- The eight core industries comprise about **40.3 per cent** weight in the IIP.

## Key Initiatives taken to boost Industrial Sector in India

- **To improve ease of doing business:** Emphasis has been given to **simplification and rationalization of the existing rules** and introduction of information technology to make governance more efficient and effective.
  - As per the **World Bank Doing Business (DB) Report 2018**, India has considerably improved its ranking to **77th position among the 190 countries**.
- **Start-up India:** It aims to create an ecosystem that is conducive for the growth of Start-ups.
  - Maharashtra, followed by Karnataka and Delhi, are among the top ten performers in terms of State-wise distribution of Start-ups.
  - As per industry-wise distribution of recognized start-ups, IT Services accounted for around 15 % followed by Healthcare and Life Sciences and Education.
  - **Steps taken for easing regulations for start ups:**
    - ✓ Exemption from Income tax on investments raised by Start-ups,
    - ✓ Self- certification regime for six labour laws and three environmental laws,
    - ✓ **Start-up India Hub** as 'One Stop Shop' for the start-up ecosystem.
- **Foreign Direct Investment (FDI):** It is a major driver of economic growth as it enhances productivity by bringing capital, skills and technology to the host country. The Government is playing a proactive role in investment promotion through a liberal FDI policy.

## Sector Wise Performances: Issues and Measures

### Steel

- In the global scenario, the year 2018-19 witnessed
  - weakening of steel market fundamentals,
  - increase in **trade friction**
  - imposition of protectionist measures and excess steel capacity.

- These have led to a **decline in steel exports** from India.
- On the other hand, **imports have gone up particularly from Korea, Japan and ASEAN countries.**
- The National Steel Policy, 2017 gives broad policy directives to the industry and envisages focus on **domestic production especially of value-added steel** in order to meet the growing demand.

#### About Steel Industry

- Directly contributes to about 1.4 to 2 per cent of India's GDP.
- Globally, India is the **2<sup>nd</sup> largest producer of crude steel** in the world surpassing Japan with a global share of 6 per cent.
- During 2018-19, crude steel's production stood at 106.56 million tonnes, witnessing a growth rate of 3.3%.
- India is the **3<sup>rd</sup> largest consumer of the finished steel** after China and USA; however, its per capita consumption is only 69 kg as against the global average of 214 kg.

#### Challenges:

- **Capacity expansion** as the demand for steel is bound to rise with economic growth.
- Difficulties in acquiring mining lease
- High dependency on **import** of coking coal add to **cost of steel production.**
- High logistics costs.
- Thus, there is a need for investment in capacity addition and infusion of modern technology for production.

#### Leather and Footwear:

- India is the **second largest producer of footwear**, second largest exporter of leather garments and fifth largest exporter of leather goods.
- **Challenges:**
  - The global demand for footwear is moving towards **non** leather footwear, while Indian tax policies **favour leather footwear production.**
  - India faces **high tariffs** in partner country markets for leather goods and non-leather footwear.
- A special package of **Rs. 2600 crore** under the scheme **Indian Footwear and Accessories Development Programme** is being implemented (2017-20) which has the potential to generate **3.24 lakh new jobs** in **three years.**

#### Gems and Jewellery:

- With a view to strengthen the sector, the Government has taken a number of steps, such as
  - establishment of Special Notified Zone and Common Facility Centres for gems and jewellery sector,
  - reduction of GST rates for cut and polished diamonds and precious stones,
  - **exempting Integrated Goods and Service Tax** on **import of gold** by specified agencies and banks,
  - A **Domestic Council for Gems & Jewellery** launched in January 2019.

#### Micro, Small and Medium Enterprises (MSME) sector:

- This sector plays a crucial role by providing large employment opportunities, industrialization of rural areas, reducing regional imbalances. Various initiatives have been taken up like:
  - In-principle approval' for loans up to Rs. 1 crore within 59 minutes through **online portal.**
  - Interest subvention of 2 per cent for all GST registered MSMEs on incremental credit up to 1 crore. **Small Industries Development Bank of India** acts as the Nodal Agency for implementation of the Scheme.
  - The Prime Minister's Employment Generation Programme,
  - Credit Guarantee Trust Fund for Micro and Small Enterprises,
  - Credit Linked Capital Subsidy Scheme for Technology Up-gradation,
  - Micro and Small Enterprises Cluster Development Programme for the establishment of new enterprises and development of existing ones.

#### Textiles and Apparels:

- The backward linkages of this sector to the rural economy give huge opportunities to millions of farmers, artisans and handicraft manufacturers. **Challenges are:**
  - Absence of scale or **fragmented and scattered manufacturing.**

- While the ginning and spinning sectors are on par with international standards, marginal **technological gap** exists in weaving, processing and embroidery.
- Indian exports of apparel continue to **face higher average tariffs** in external markets as compared with competing nations which enjoy duty free access.
- **Initiatives:**
  - Special Package for garments and made-ups sectors which offers Rebate of State Levies, labour law reforms, additional incentives under **Amended Technology Up-gradation Fund Scheme**.
  - Products such as **fire, yarn and fabric in the textile value chain** are being strengthened and made competitive through various schemes.
  - Assistance provided to exporters under **Market Access Initiative Scheme**.

**About Textile Sector**

- Biggest employer after agriculture employing 4.5 crore people directly.
- Indian textile industry, the **2<sup>nd</sup> largest manufacturer and exporter in the world**, contributes **12.65 % to manufacturing and 2.3 % to GDP**.
- India has a share of **5% of the global trade** in textiles and apparel.
- The share of textile in India's total exports stands at **12 per cent (2018-19)**.

**Infrastructure**

- A **robust and resilient Infrastructure** is fundamental and essential for budding industries. India needs to spend **7-8 per cent** of its GDP on infrastructure annually, which translates into annual infrastructure investment of **US\$200 billion** currently. However, India spends only about US\$100-110 billion annually on infrastructure, leaving a deficit of around US\$90 Billion per annum.
- **Several initiatives have been taken up like:**
  - **National Investment and Infrastructure Fund** with a capital of Rs. 400 billion to provide investment opportunities to commercially viable projects.
  - **Credit Enhancement Fund** for infrastructure projects also envisaged.
  - **A new Credit Rating System** for infrastructure projects, to provide additional risk assessment mechanism for informed decision making.
  - **Infrastructure investment trusts** and **Real Estate Investment Trusts** to pool investment in infrastructure.

**Transport**

- **Road Sector:** Ministry of Road Transport and Highways (MORTH) declared **2018-19 as the 'Year of Construction'**.
  - The **major constraints** faced by the sector:
    - ✓ Lack of availability of funds for large projects as well as for maintenance.
    - ✓ Lengthy processes in acquisition of land and payment of compensation to the beneficiaries,
    - ✓ Environmental concerns,
    - ✓ Time and cost overruns due to implementation and Procedural delays
  - **Initiatives:**
    - ✓ Process streamlining indicating approval authorities with enhanced delegation of approval limits,
    - ✓ putting in place mechanisms for inter-ministerial coordination,
    - ✓ introducing innovative project financing for leveraging both private and public funding,
    - ✓ streamlining land acquisition processes,
    - ✓ **Central Road Fund (CRF)** which is a major source of budgetary support for the Highway sector was replaced by Central Road and Infrastructure Fund (CRIF).
- **Railways:** Rail freight and passenger traffic grew by 5.33 per cent and 0.64 per cent respectively in 2018-19 as compared to 2017-18.

**Road Transport**

- It is the dominant mode of transportation as it accounts for about 3.14 per cent of GVA and 69 per cent and **90 per cent of the country wide freight and passenger traffic** respectively.
- India has a road network - rural roads constituting 70.65 % and National highways constituting 1.94 %.
- Road construction in kms grew at **30 kms per day in 2018-19 as compared to 12 kms per day in 2014-15**.

- **Rail Safety:** Incident of train collisions has come down to zero in the year 2018-19. The incidents of derailment have decreased from 78 in 2016-17 to 46 in the year 2018-19.
- **Mission Electrification:** Indian Railways has initiated a major electrification program for electrifying 100 per cent of its Broad-Gauge network which would reduce the nation's dependence on imported diesel oil.
- **'Swachh Rail, Swachh Bharat'**, mission focuses on cleanliness.
- Concept of **"Green Rating"** has been introduced for water and energy conservation.
- **Civil Aviation:** The demand and supply trends in civil aviation shows that passenger demand is higher than the seat supply. To meet the surging demand and providing air connectivity to remote regions, new Greenfield airports are being rapidly developed.
  - India's scheduled domestic air transportation for passengers and goods has grown by **14 per cent and 12 per cent** respectively in 2018-19.
  - At the end of 2018-19, a total of **107** airports provided scheduled airline operations.
  - Under **"Ude Desh ka Aam Naagrik-UDAN"**, a total of 719 routes have been awarded in three rounds of bidding for regional connectivity, 182 of which are operational.
  - UDAN (International) Scheme has been launched recently, under which **Guwahati Airport will be connected to Bangkok and Dhaka shortly.**
  - The first **National Air Cargo Policy's** outline was released in 2019 to achieve fundamental re-engineering of the whole-of-the-value-chains for domestic and export-import air freight for reaching the target of handling **10 million tonnes by 2026-27.**
- **Shipping and Ports Sector:** Ports handle around 90 per cent of EXIM Cargo by volume and 70 per cent by value. In order to meet ever-increasing trade requirements, **expansion of port capacity** has been accorded the highest priority.
  - **Inland Water Transport:** The cargo traffic on National Waterways has increased by 31 per cent in 2018-19. **India's first inland waterway multimodal terminal (MMT) at Varanasi was inaugurated in 2018.**
  - For facilitating **Ease of Doing Business**, Ministry of Shipping had identified various parameters for **reducing dwell time and transaction costs** in the major ports. These include **elimination of manual forms, Direct Port Delivery** etc.
- **Telecom Sector:** Growth in the telecom sector in India remains strong due to **consumer demand** and **supportive policies of the Government.**
  - The mobile industry has witnessed exponential growth driven by
    - ✓ affordable tariffs,
    - ✓ wider availability,
    - ✓ roll out of Mobile Number Portability (MNP),
    - ✓ expanding 3G and 4G coverage.
  - **Initiatives:**
    - ✓ The constituted **High Level 5G India 2020 Forum** submitted its report on "Making India 5G Ready". Based on the recommendations of the forum, seven committees have been constituted for action on Spectrum Policy, Regulatory Policy, Education and Awareness Promotion Program, etc.
    - ✓ **13-digit Machine to Machine (M2M) Numbering Plan for M2M communication:** M2M Communications /Internet of Things (IoT) refers to technologies which involve machines or devices communicating among themselves through a network without human intervention.
    - ✓ 'Telecom Commission' has been re-designated as the 'Digital Communications Commission' to ensure effective implementation and monitoring of the newly announced 'National Digital Communications Policy- 2018'.

**Challenges**

- High airport tariffs, royalty and other charges,
- shortages of certain skilled manpower in civil aviation sector and
- recourse to overseas suppliers of **Maintenance Repair & Overhaul (MRO)** facilities.
- High and unpredictable change in **global crude oil prices during 2018-19** have been compounded by a high domestic tax regime on aviation turbine fuel.

- As per a GSMA report, the mobile industry supports about **6.5 % of India's GDP which is expected to reach 8.2 % by 2020.** It also supports a total of 32 million jobs (directly and indirectly).
- The overall **tele-density** in India stands at 90.10 % in March 2019. (Rural-57.5 % and Urban -159.66 %)

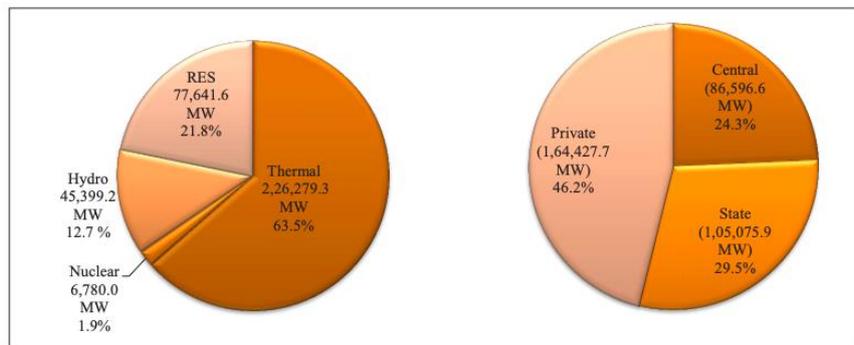
**Petroleum & Natural Gas:** The Government aims to “Reform, Perform and Transform” the energy sector of the country by achieving self-sufficiency.

- India’s primary energy demand is expected to grow at a CAGR of 4.21 per cent during 2017-2040, much faster than any major economy in the world. There is thus a need to augment refining capacity to meet growing demand for petroleum fuels and petrochemicals, which play significant role in sustaining GDP.
- **Policy Initiatives**
  - **Hydrocarbon Exploration Licensing Policy (HELP)/** Open Acreage Licensing Policy (OALP), Discovered Small Field (DSF) Policy.
  - Policy framework for exploration of Unconventional Hydrocarbons under existing **Production Sharing Contracts**.
  - **Coal Bed Methane** contracts.
  - Setting up of National Data Repository for re-assessment of Hydrocarbon Resources,
  - **Pradhan Mantri Ujjwala Yojana (PMUY)** for providing LPG connections to 8 crore women belonging to the BPL families over a period of three years starting from 2016-20.

**Power Sector**

- India improved its ranking in the **Energy Transition Index published by World Economic Forum (76th position)**.
- Along with universal electrification, progress has also been made in generation and transmission.
- As on March 2019, **2.6 crore households have been electrified since the launch of SAUBHAGYA scheme**.

**Figure 19: Total Power Generation Capacity as on April, 2019 (Fuel-wise & Sector-wise)**



- The installed capacity of electricity has increased to 3, 56,100 MW in 2019 from 3, 44,002 MW in 2018.

**Urbanization and Housing:**

- According to Census 2011, 31.14 per cent of the country’s population lived in urban areas, which are projected to grow more than 600 million by 2031.
- **Policy Initiatives:**
  - **The Real Estate (Regulation and Development) Act, 2016 (RERA):** to ensure regulate and promote real estate sector in an efficient and transparent manner and to protect the interest of home buyers.
  - **Pradhan Mantri Awas Yojana (Urban):** for providing housing facilities to all the eligible families/beneficiaries by 2022.
  - **Smart Cities Mission:** Some of the recent initiative under Smart Cities Mission
    - ✓ **The Ease of Living (EoL) Index 2019’:** Introduced to assess the ease of living of citizens across three pillars such as **quality of life, economic ability and sustainability**.
    - ✓ **Municipal Performance Index (MPI), 2019:** To examine the sectoral performance of municipalities across a set of 5 verticals namely **Service, Finance, Planning, Technology and Governance**.
    - ✓ **National Urban Innovation Hub:** It will be the apex national level institution that will drive the **MoHUA’s whole-of -system innovation through a Hub and-Spoke network across** states and UTs and for delivering the capacity building for **urban transformation and governance reforms**.

**Infrastructure Financing/Public Private Partnerships (PPPs):** As per the **Private Participation in Infrastructure database of World Bank**, India is ranked second among developing countries both by the number of PPP Projects.

- **Challenges:**
  - ✓ To devise a comprehensive resolution option for projects which are either stuck-up mid-way.
  - ✓ Private developers have faced issues of leveraged balance sheets and aggressive bidding making it difficult for them to mobilize resources for completion of projects.
- **Measures**
  - ✓ To establish an institutional mechanism to deal with timebound resolution of disputes.
  - ✓ Adoption of the Hybrid Annuity Mode of PPP to encourage private participation. Under this, Government contributes 40 per cent of the total project cost in the construction period, remaining 60 per cent is paid as biannual annuity after the completion of the project construction.

### Conclusion

In a fast-moving world to maintain growth momentum, India has to develop its industry and infrastructure to experience the potential of the perfect blend of Industry 4.0 and next generation infrastructure. Industry 4.0 encompasses **automation in industrial sectors** whereas next generation infrastructure brings physical infrastructure and technology like internet of things, automation together to maximize the efficiency of physical infrastructure.

**PHILOSOPHY/ दर्शनशास्त्र**  
*by*  
**ANOOP KUMAR SINGH**

**Classroom Features:**

- ✓ Comprehensive, Intensive & Interactive Classroom Program
- ✓ Step by Step guidance to aspirants for understanding the concepts
- ✓ Develop Analytical, Logical & Rational Approach
- ✓ Effective Answer Writing
- ✓ Revision Classes
- ✓ Printed Notes
- ✓ All India Test Series Included

**OFFLINE CLASSES @**

**JAIPUR 20 July** | **AHMEDABAD 14 July**  
**PUNE 20 Aug** | **Hyderabad 29 July**

**हिन्दी माध्यम में भी उपलब्ध**

**Answer Writing Program for Philosophy (QIP)**  
Overall Quality Improvement for Philosophy Optional

**Daily Tests:**

- ✓ Having Simple Questions (Easier than UPSC standard)
- ✓ Focus on Concept Building & Language
- ✓ Introduction-Conclusion and overall answer format
- ✓ Doubt clearing session after every class

**Mini Test:**

- ✓ After certain topics, mini tests based completely on UPSC pattern
- ✓ Copies will be evaluated within one week

# CHAPTER 9: SERVICES SECTOR

## Introduction

The services sector accounts for 54 per cent of India's Gross Value Added (GVA). However, with a 34% share in employment, it does not generate jobs in proportion to its share in GVA.

- **Performance:**
  - **India's Gross Value Added in the Services Sector:** Services sector growth moderated in 2018-19 to 7.5 % from 8.1 % in 2017-18.
    - ✓ Despite this, **services sector growth continues to outperform agriculture and manufacturing sector growth, contributing more than 60 % to total GVA growth.**
  - **Accelerated sub-sectors:** Financial services, real estate and professional services.
  - **Decelerated sub-sectors:** Hotels, transport, communication and broadcasting services.
  - **Performance of the states:** The share of services in total gross state value added (GSVA) was more than 50 per cent in 14 out of the 33 states and UTs. The share of services is particularly high in Chandigarh and Delhi with over 80 per cent share while Sikkim was at the bottom with 30.2 per cent share.
- **Trade in services:** Services exports have slowed during April-December 2018 after witnessing strong performance in 2017-18 (April-December).
  - **Computer & ICT services, business services and travel services account** for about 75 % of the total services exports.
  - According to the WTO, India is among the world's top 10 exporters and importers of commercial services, ranking eighth in exports and tenth in imports in 2017.
- **FDI into Services Sector:** FDI equity inflows into the services sector accounted for more than 60 % of the total FDI equity inflows into India
  - An investor-friendly FDI policy has been put in place under which up to 100 % FDI is permitted via automatic route in most sectors, including **single-brand retail trading, construction development and regulated financial sector activity.**
- **Services sector gross value added versus employment:** As per the UN National Accounts Statistics data, India is 9th in terms of services sector size in 2017.
  - India has the **second fastest growing services sector after China.**
  - India also ranks **second after the UK in terms of services share in exports.**
  - However, India **ranks the second lowest after China in terms of services share in Gross Value Added (GVA) and ranks the lowest in terms of services share in employment.**
  - The sector has not been able to generate jobs in proportion to its size and there lies immense potential for employment generation in the services sector in the coming years.
- **Government's initiatives:**
  - The **Service Exports from India Scheme (SEIS)** covers export of business services, education services, health services, tourism and travel related services, etc.
  - Government has also created a dedicated fund of ₹5,000 crore for financing sectoral initiatives under the **Champion Services Sector Scheme.**
  - Apart from these Government has taken many initiatives such as Start-up India, Insolvency and Bankruptcy Code, Digital India etc. which could give a further fillip to the growth of services sector.

## Major Service Sectors - Performance and Policies:

- **Tourism:** In India, the Tourism sector had been performing well with Foreign Tourist Arrivals (FTAs) growing at 14 per cent to 10.4 million and Foreign Exchange Earnings (FEEs) at 20.6 per cent in 2017-18. However, the sector witnessed a slowdown in 2018-19.
  - **Outbound tourism increased** in recent years, with the number of departures of Indian nationals from India, that stood at 23.94 million with a growth rate of 9.5% in 2017.
  - **Tamil Nadu, Uttar Pradesh, Karnataka, Andhra Pradesh and Maharashtra** were the top 5 destination States, accounting for 63.2 % of total number of domestic tourist visits in 2017.

- **Issues related to tourism industry:**
  - ✓ The co-ordination mechanism of various like-minded Ministries and Stakeholders to resolve issues for promotion of tourism in the country needs to be strengthened.
  - ✓ State/UT Government need sensitization about tourism as a major driver of employment and poverty alleviation.
  - ✓ Budgetary allocation for development of tourism infrastructure should be increased.
  - ✓ Land should be made available for hotels and reserve land for hotels in all new townships under planning.
  - ✓ Fast-track clearances for hotel projects.
  - ✓ Increase skill development efforts to train more persons.
  - ✓ Make the Taxation regime on Hospitality Industry globally competitive.

- **Recent policy initiatives:**

- ✓ The Ministry of Tourism launched the '**National Mission on Pilgrimage Rejuvenation and Spiritual, Heritage Augmentation Drive**' (PRASHAD) in January 2015 with the objective of pilgrimage infrastructure at selected important pilgrimage destinations.
- ✓ **Under the Swadesh Darshan Scheme, the Ministry of Tourism** has identified 15 thematic circuits for development which cover religious, spiritual, cultural, natural, tribal sites in the country. Under the scheme the Ministry is developing these thematic circuits on the principles of high tourist value, competitiveness and sustainability in an integrated manner with an objective of enriching tourist experience and enhance employment opportunities.

- **IT – BPM Services:** The Indian IT-BPM industry grew to US\$181 billion in 2018-19 from US\$154 billion in 2016-17, as per NASSCOM data.

- IT-BPM exports grew by 7.7 % in 2017-18. USA, UK and EU account for 90 per cent of the total IT-ITeS exports.
- E-commerce market is estimated at US\$43 billion for FY 2018-19, at the growth rate of 12 %.
- Efforts are being made to diversify and increase presence in the new and emerging markets in Europe, Africa, South America, Israel etc. through market development and industry repositioning initiative.

- **Recent policy initiatives:**

- ✓ The National Policy on Electronics 2019 (NPE 2019) has been notified by the Ministry of Electronics and Information Technology (MeitY) which includes creating eco-system for globally competitive ESDM sector; promotion of electronic components manufacturing ecosystem; special package of incentives for mega projects; etc.
- ✓ Various other Government initiatives include Digital India, common service centres, BPO promotion schemes, Digital Saksharta Abhiyaan, GST network, e-agriculture market place/ digital mandis etc.

- **Space Services:** Indian Space Programme contributes to National Development, through the application of space technology, comprising of earth

**Health and Medical Tourism:**

- The market size of medical tourism in India is estimated at **US\$ 3 billion** in 2017 and is forecasted to reach **US\$ 9 billion by 2020**.
- India currently has around **18 per cent of the global medical tourism** market.
- Share of Medical Tourists to India is **4.9 per cent out of total FTAs** in 2017.
- The Ministry of Tourism has recognized Medical and Wellness Tourism including **Ayurveda** as a Niche product in order to overcome the aspect of 'seasonality' and to promote India as 365 days' destination and attract tourists with specific interests.
- Medical Tourism is regularly highlighted for promotion as part of the **Incredible India Campaign** in the print, electronic, online and outdoor media in India and abroad.
- '**Medical Visa**' has been introduced, for specific purpose to foreign travellers coming to India for medical treatment.
- '**E- Medical Visa**' has also been introduced for **166 countries**.

**India's Space Achievements**

- India became the **6<sup>th</sup> nation to develop the highly complex cryogenic rocket propulsion technology** which paved the way for the development of a high thrust Cryogenic engine & stage for GSLV Mk-III.
- In the case of Satellite Launching, as on March 2019, PSLV had cumulatively launched 324 satellites that include 269 International customer satellites.
- PSLV also holds the distinction of launching the highest number of satellites, 104, in a single launch.
- In its second developmental flight in 2018, GSLV Mk- III launched the heaviest satellite **GSAT-29**.



observation, communication and navigation to address issues related to socioeconomic development from macro to micro levels.

- **Bhuvan Services:** ISRO's Bhuvan Geo-portal provides multi sensor, multi-platform and multi temporal Satellite Imagery, thematic maps and satellite data-derived information related to Earth Observation & Disaster Management Support. Bhuvan has enriched portals of more than 20 Central Ministries/Departments and 30 States, and is also providing Geospatial support for many flagship programmes of the Government.
- **Mapping and Geospatial Services:** Satellite data, synchronous with ground data, are used to estimate crop acreage in season forecasting of production for 8 major crops in the country.
  - ✓ Using the techniques developed by ISRO, the **Mahalanobis National Crop Forecast Centre** regularly generates crop forecasts provides for planning and decision making.

# CHAPTER 10: SOCIAL INFRASTRUCTURE, EMPLOYMENT AND HUMAN DEVELOPMENT

## Introduction

- India is committed to achieve the 2030 Agenda for Sustainable Development as reflected in the 17 Sustainable Development Goals (SDGs) and 169 targets. The Government has been focusing on provisioning of assets such as schools, institutes of higher learning, hospitals, access to sanitation, water supply, road connectivity, affordable housing, skills and livelihood opportunities.
- It has been estimated that **demographic advantage in India is available for five decades from 2005-06 to 2055-56, longer than any other country in the world**. This demographic advantage can be reaped only if education, skilling and employment opportunities are provided to the young population.

## Human Development Index (HDI)

- India's HDI has **improved significantly from 0.427 to 0.640 between 1990 and 2017**. But its position is **still lowest among its peer countries** (Asian and developing economies). As per the UNDP Human Development Index (HDI), **India is ranked 130 among 189 countries**. Moreover, India also reflects **inter-State disparities** in regional and human development which are reflected by State level HDIs.
- The **2017 HDI scores** indicate that the States like Kerala, Goa, Himachal Pradesh and Punjab occupy the top four positions while the States like Bihar, UP and MP are at the bottom of the rankings.
- **Sustainable Development Goals (SDGs)**: To measure India's performance in SDG's, NITI Aayog has developed the **SDG India Index** for all States and UTs.
  - States like Kerala, Himachal Pradesh and Tamil Nadu are occupying top three positions while UP, Bihar and Assam are ranked at the lowest.

## Gender Issues

- To mainstream women and make women active agents of change in the society so as to achieve the Gender equality (SDG-5), the Government of India has initiated several programmes like Beti Bachao, Beti Padhao (BBBP), Ujjwala Scheme, Poshan Abhiyaan, Pradhan Mantri Matra Vandana Yojana etc.
- **Financial Inclusion**: It **enhances women's self-confidence** and enables **financial decision-making** to a certain extent. At all India level, the **proportion of women having a bank or saving account** that they themselves use have increased from 15.5% in 2005-06 to 53% in 2015-16.
- **Women's participation in household decision making**: As per NFHS-4, participation of currently married women in household decision making has increased from 76.5% in 2005-06 to 84% in 2015-16 at all India level.

## Gender Budgeting

- The Ministry of Women and Child Development (MoWCD) as the Nodal agency has adopted the **mission strategy** of 'Budgeting for Gender Equity' to ensure that government budgets are planned according to the differential needs of women and men and accordingly prioritized.
- It is undertaken through several **institutional mechanisms** such as **Gender Budget Statement, Gender Budget Cells**, as well as various schemes/programmes for women and girls.
- Gender budgeting was referred for the **first time** by the then Finance Minister of India in his budget speech in 2001. Department of Expenditure has been issuing a note on Gender Budgeting as a part of budget circular since 2005-06.
- Chief Secretaries of all States/UTs were instructed to set up gender budget cells on the lines of the **Charter for Gender Budget cells** issued by the Ministry of Finance in 2012. A **guideline** was also issued to provide a road map towards institutionalising Gender Budgeting at State level in 2013.

## Trends in Social Sector Expenditure

- The expenditure on social infrastructure like health and education is a critical indicator of the commitment of the government towards these sectors.
- The expenditure on social services by the Centre and States as a proportion of GDP has registered an **increase of more than 1 percentage points** during the period 2014-15 (6.2%) to 2018-19 (7.3%).

- There has been a **general increase across all social sectors especially education** where the public expenditure as a per cent of GDP increased from 2.8% in 2014-15 to 3% in 2018-19.

### Education for All

- **SDG-4 on education** requires ensuring equitable, inclusive and quality education along with promotion of lifelong learning opportunities for all by 2030.
- **Status of Education in India**
  - Up-to secondary level the **Gross Enrolment Rate (GER) for girls** has exceeded that of boys but is lower than that of boys at the higher education level. At this level, the gap is visible across the social categories too.
  - The **drop-out rates** are very high for boys at the secondary school level. The reasons include economic activities, lack of interest in education and financial constraints.
  - The **transition rate** from secondary school to senior secondary and further to higher education is also very low.
  - While the Pupil Teacher Ratio appears to be satisfactory, it is clear that while there are sufficient teachers, the main issue is their balanced deployment based on student strength.
- **Gender Parity Index (GPI) based on GER:** GPI based on GER indicates increasing trend of female participation at all levels. Although, enrolment of girls is higher than that of boys in government schools, the pattern gets reversed in private schools. The **gender gap in enrolment in private schools** has consistently increased across age groups.

**Table 5: GER (per cent), Drop-out Rate (per cent) and Pupil Teacher Ratio at levels of schooling**

| Level            | GER (2016-17) | Drop-Out Rate (2016-17) | Pupil Teacher Ratio (Norm) 2015-16                         |
|------------------|---------------|-------------------------|--|
| Primary          | Male: 94.02   | Male: 6.3               | 23 (30 - RTE)  |
|                  | Female: 96.35 | Female: 6.4             |  |
| Upper Primary    | Male: 86.90   | Male: 4.97              | 17 (35 - RTE)  |
|                  | Female: 95.19 | Female: 6.42            |  |
| Secondary        | Male: 78.51   | Male: 19.97             | 27 (30 – Secondary level laid down in the relevant Scheme) |
|                  | Female: 80.29 | Female: 19.81           |  |
| Senior Secondary | Male: 54.93   | Male: .637              | 37   |
|                  | Female: 55.91 | Female: 5.49            |  |
| Higher Education | Male: 26.3    | NA                      | 30   |
|                  | Female: 25.4  | NA                      |  |

- **Learning Outcomes: Improving quality of education**
  - As per Annual Status of Education Report (ASER, 2018), from 2014 to 2018, there is a **gradual improvement** in both basic literacy and numeracy for Class III students but still **only a quarter of them are at grade level** (ability to read and do basic operations like subtraction of Class II level).
  - **1 out of 4 children leaving Class VIII are without basic reading skills** (ability to read at least at Class II level).
  - As per the amended Rules of the RTE Act, **Learning Outcomes** for each class (till Class VIII) have been developed.
- **National Achievement Survey**, which was earlier based on textbook content, has been made a **competency-based evaluation** from 2017.
- **Shortfall of teachers:** Despite the high number of pass-outs in D.Ed./B.Ed. programme and surplus teachers in zero enrolment schools, there were **9.08 lakh vacancies of teachers** at elementary level in government schools as on 31st March 2016.

- **Challenges with Education System:** The shortage of teachers and principals and administrative staff, lack of regular supervision and inspection, inadequate training of the teachers, timely availability of finances are some of the factors plaguing the education system in the country as captured by **PGI (Performance Grading Index, 2017-18)** in the Governance and Management Domain for the first time.

#### Recent Initiatives in School Education Sector

- **Samagra Shiksha:** A comprehensive programme subsuming Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and Teacher Education (TE). For first time, it also includes provisions for support at pre-school level, library grants and grants for sports and physical equipment. The vision of the Scheme is to ensure inclusive and equitable quality education from pre-school to senior secondary stage in accordance with the Sustainable Development Goal (SDG) for Education (SDG-4).
- **Swayam** platform offers 10 courses of Diploma in Elementary Education (D.El.Ed) and more than 13 lakh unqualified teachers have enrolled for this diploma.
- **UDISE+**, an updated online real time version of UDISE (Unified District Information on School Education) has been launched with three additional features – GIS mapping, data verification through third-party mobile application and data analytics.
- **PGI**, Ministry of Human Resource Development has launched a 70-point Performance Grading Index (PGI) to assess areas of deficiency in each state's school education system so that targeted interventions can be made at every level from pedagogy to teacher training.
- **ICT driven initiatives:** Shaala Sidhi (to enable all schools to self-evaluate their performance), e-Pathshala (providing digital resources such as textbooks, audio, video, periodicals etc.) and Saransh (an initiative of CBSE for schools to conduct self-review exercises).

#### Skill Development

- According to NSSO Report 2011-12, **only 2.3% of the total workforce in India had formal sector skill training**. Government had formulated the **National Policy on Skill Development & Entrepreneurship, 2015** under which the **Skill India Mission by 2022** was formulated.
- **Bridging the disconnect in the Skilling Ecosystem:** Some recommendations towards improving the skill development programmes are stated below:
  - **Proper pre-screening** on the candidates to ensure that only eligible candidates are enrolled for the programme. Moreover, stronger facilitation support to avail MUDRA loan should be provided to PMKVY certified candidates.
  - **Skill Voucher** to be redeemed by the institutions can be introduced as a financing instrument. They can be given to a beneficiary that enables them to sign up for vocational education course at any accredited training institute.
  - **Industry should be incentivized** to set up training institutions in **PPP mode**, curriculum development, training modules, provision of equipment, training of trainers etc. along with developing a database of instructors for selection of Training providers.
  - The **personnel of Railways and other para-military forces** could be used for skill training or lending institutional support in imparting training in hilly, inaccessible and difficult terrains.
  - **Local bodies** can be used for skill mapping and creating a data base of youth at local level to assess demand supply gaps.

#### Employment Scenario

- **Findings of Periodic Labour Force Survey (PLFS)**
  - **Labour Force Participation Rate (LFPR) in India has declined** to 36.9% in 2017-18 from 39.5% in 2011-12 (NSSO) as per usual status. In rural areas, it has declined by 3.6 percentage points while it has declined by 0.1 percentage points in urban areas.
  - The **Worker Population Ratio (WPR)** has also shown similar trend. As per usual status, **WPR in India has declined** to 34.7% in 2017- 18 from 38.6% in 2011-12 (NSSO). The WPR has declined by 4.9 percentage points in rural areas while it has declined by 1.6 percentage points in urban areas.
  - The **unemployment rate (UR) in India stood at 6.1%** with 5.3% in rural areas and 7.8% in urban areas as per usual status.
  - **General education of youth** has improved to 65.4% for urban females and 65.8% for urban males.

- **Technical/ Vocational Education:** 94.3% of those aged 15 or over in urban areas do not have technical education. The proportion of urban youth who received formal vocational training has improved to 4.4% in 2017-18.
- **Income gap:** On average, a **male employee earned nearly 1.2-1.3 times the earnings of female regular salaried worker** in 2018. However, self-employed male workers earned 2 times more than the earnings of self-employed female workers in urban areas in 2018.
- **Indicators for Employment in Formal Sector:** Three major schemes, namely, the Employees' Provident Fund (EPF) Scheme, the Employees' State Insurance (ESI) Scheme and the National Pension Scheme (NPS) used to estimate the formal status of employment. There are elements of **overlap** and the **estimates are not additive**.
  - Based on the payroll data released by EPF subscribers, the net employment generation in the formal sector was higher at 8.15 lakh in March 2019 against 4.87 lakh in February 2018, **reflecting a positive trend in terms of employment in the formal sector**.

### Health for All

Human health and wellbeing are interrelated with sustainable development in a complex, bidirectional way, in that investment in health for all supports social, economic and environmental sustainability.

- **Maternal Health:** Maternal Mortality Ratio (MMR) of India has declined by 37 points from 167 per lakh live births in 2011-13 to 130 per lakh live births in 2014-16. All Empowered Action Group (EAG) States have shown MMR decline which is higher than that of National Average.
- **Child Health:** The **Under Five Mortality Rate (U5MR)** in India is **39 per 1000 live births**, **Infant Mortality Rate** is **34 per 1000 live births** and **Neonatal Mortality Rate** is **24 per 1000 live births**.
- **Expenditure on health:** During 2013-14 to 2015-16, there is trend of decreasing **Out of Pocket Expenditure (OOPE)** and an increase in public health expenditure out of **Total Health Expenditure (THE)**.
  - Public health expenditure (Centre, States and Local Bodies), as a percentage of THE increased from 22.5% in 2004-05 to 30.6% in 2015-16 while OOPE has declined from 69.4% in 2004-05 to 60.6% in 2015-16.
  - The **OOPE still remains the major component of healthcare expenditure** with expenditure on medicines being the major component. Despite Government's effort to provide medicines free of cost in Government facilities (e.g. Free Drugs and Diagnostics Service initiatives), more than 60% of the patients are still forced to pay for some of the medicines they receive.
  - **Affordability:** The potential of AYUSH in reducing health expenses is immense. This aspect has been rightly recognised by the **National Ayush Mission (NAM)** by co-locating AYUSH healthcare services under single roof so that people are free to choose, what is appropriate for them, thus **making healthcare more accessible, accountable, affordable and customised**.
    - ✓ Recognising the significance of alternative systems, government has approved the **continuation of NAM** from 01.04.2017 to 31.03.2020 with an outlay of ₹2400 crore.
- **Health Infrastructure in Rural Areas**
  - IPHS (Indian Public Health Standards) are a set of uniform standards envisaged to improve the quality of health care delivery in the country.
  - Andhra Pradesh, Tamil Nadu are the States where higher percentage of PHCs are following IPHS norms, indicating higher level of antenatal care, thereby reflecting low MMR.
- **Human Resource in health sector**
  - Rural health facilities suffer from difficulty in attracting, retaining, and ensuring regular presence of highly trained medical professionals. There are large number of PHCs which are functioning with one doctor or without doctor.
  - Even if the personnel are present, their level of participation in providing health services, may not be at desirable levels due to lack of supplies, inadequate infrastructure facilities, poor monitoring of the staff etc.
  - **Suggestion:** Public health services delivery in rural areas warrants better governance mechanisms through adoption of technologies, community and Local Self Government (LSG) participation and social audit.

- **National Quality Assurance Programme (NQAP):** Under the ambit of NQAP, **Kayakalp: Clean Hospital Initiative** was launched in 2015. It aims to promote sanitation and hygiene in public healthcare institutions.

### Rural Development

- **Rural Connectivity:** The Pradhan Mantri Gram Sadak Yojana (PMGSY) launched in 2000, aims to provide funds to States to construct rural roads to connect villages by all-weather roads. Since 2014, around 190,000 km of rural roads have been constructed.
  - Use of “**Green Technologies**” and **nonconventional materials** like waste plastic, cold mix, geotextiles, fly-ash, iron and copper slag etc. in PMGSY helps reduce the “Carbon Footprint” of rural roads, reduce environmental pollution, increase the working season and bring cost effectiveness.
  - Using “Green Technologies”, 28,619 km of roads have been constructed and a record road length of 14,756 km was constructed in 2018-19.
- **Rural housing (PMAY-G): Shelter for the Poorest of the Poor:** Pradhan Mantri Awas Yojana (Gramin) (PMAY-G) was launched in 2016 with a target to complete **one crore pucca houses with basic amenities** by March 31, 2019.
  - During 2014-2019, **1.54 crore houses were completed** including those carried over from Indira Awas Yojana through **convergence of government initiatives** like piped drinking water, toilets under Swachh Bharat Mission/ MGNREGS, electricity connection under Saubhagya programme, LPG connection under Ujjwala programme.
  - On account of DBT, geo tagging, fair beneficiary selection, effective transaction based MIS, monitoring through “AwaasSoft” and mobile based application “AwaasApp etc, misutilization of funds was substantially brought down leading to faster completion of houses.
- **Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)**
  - Government has prioritized MGNREGS which is reflected in the upward trend in budget allocation and release of funds to the States in the last four years.
  - **MGNREGA Statistics: During 2018-19**
    - ✓ Generated 267.96 crore persondays (persondays for women-54.6%, SC-20.7% and ST-17.4%).
    - ✓ 66% of total works taken up pertained to individual beneficiary schemes
    - ✓ 63% of the total expenditure was on agriculture and allied works.
    - ✓ Around 85,000 km of road length was constructed under MGNREGA.

### Way Forward

India's development trajectory is critically intertwined with the investments in social infrastructure. **Scaling up development programmes for improving connectivity, providing housing, and bridging gender gaps in socio-economic indicators is of paramount importance for sustainable development.** India's march towards achieving SDGs is firmly anchored in investing in human capital and inclusive growth.

#### Copyright © by Vision IAS

*All rights are reserved. No part of this document may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without prior permission of Vision IAS.*