For M. Phil

Challenges and Way Ahead for India in achieving the target of

Dollar 5 Trillion Economy by 2024-25

A Dissertation submitted to the Panjab University, Chandigarh for the award of Master of Philosophy in Social Sciences, in Partial Fulfilment of the requirement for the Advanced Professional Programme in Public Administration (APPPA)

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CERTIFICATE

I have the pleasure to certify that **Shri Bhupendra Sharma** has pursued his research work and prepared the present dissertation titled **"Challenges and Way ahead for India in achieving the target of Dollar 5 Trillion Economy by 2024-25"** under my guidance and supervision. The dissertation is the result of his own research and to the best of my knowledge, no part of it has earlier comprised any other monograph, dissertation or book. This is being submitted to the Panjab University, Chandigarh, for the purpose of Master of Philosophy in Social Sciences in Partial fulfilment of the requirement for the Advanced Professional Programme in Public Administration of Indian Institute of Public Administration (IIPA), New Delhi.

I recommend that the dissertation of **Shri Bhupendra Sharma** is worthy of consideration for the award of M.Phil degree of Panjab University, Chandigarh.

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List of Abbreviations

Abbreviation	Description
AAI	Airports Authority of India
ABY	Ayushman Bharat Yojana
ADB	Asian Development bank
AE	Advance Estimates
AIBP	Accelerated Irrigation Benefits Programme
AIFs	Alternative Investment Funds
AJP	Artificial Judicial Person
AMP	Automotive Mission Plan
APEC	Asia-Pacific Economic Cooperation
AOP	Association of Persons
ASEAN	Association of Southeast Asian Nations
bbl	Barrel
BIFR	Board for Industrial and Financial Reconstruction
BOI	Body of individuals
BoP	Balance of Payments
BOT	build-operate-transfer
BPL	Below Poverty Line
BREXIT	British Exit from European Union
BRICS	Brazil, Russia, India, China and South Africa
CAD	Current Account deficit
CAGR	Compound Annual Growth Rate
CAPEX	Capital Expenditure
CBDT	Central Board of Direct Taxes
CCI	Competition Commission of India
CEPA’s	Comprehensive economic partnerships agreements
CETA	Comprehensive Economic and Trade Agreement
CMIE	Centre for Monitoring Indian Economy
CoC	Cost of cultivation
COVID-19	Coronavirus disease 2019
CSR	Corporate social responsibility
CWC	Central Warehousing Corporation
DAP	Diammonium phosphate
DFI	Doubling Farmers’ Income
DHFL	Dewan Housing Finance Corporation Ltd.
DISCOMs	Distribution Company (In India)
DPIIT	Department for Promotion of Industry and Internal Trade
DRR	Debenture Redemption Reserve
EDFC	Eastern Dedicated Freight Corridor
EIA	Energy Information Administration (US)
e-NAM	National Agriculture Market

EODB	Ease of doing business
EPFO	Employees' Provident Fund Organisation
EXIM	Export-Import
FCI	Food Corporation of India
FDI	Foreign Direct Investment
FEMA	Foreign exchange management Act
FFS	Fund of Funds for Startups
FMCG	Fast-moving consumer goods
FPIs	Foreign Portfolio Investors
FPO’s	Farmer’s producer organizations
FTAs	Free Trade Agreements
FTP	Foreign Trade Policy
FY	Financial Year
GCA	Gross cropped area
GDP	Gross Domestic Product
GFCF	Gross fixed capital formation
GoI	Government of India
GRT	Gross registered tonnage
GST	Goods and Service Tax
GVA	Gross value added
GVCs	Global Value Chains
GW	Giga-Watt
H1 and H2	"Half first" and "Half second" of Financial Year
HAM	Hybrid Annuity Mode
HFCs	Housing Finance Companies
HKKP	Har Khet Ko Pani
HLAG	High level advisory group
HUF	Hindu Undivided Family
HVCs	High value crops
HYV	High Yield variety
IBC	Insolvency and Bankruptcy Code
IBBI	Insolvency and Bankruptcy Board of India
ICAR	Indian Council of Agricultural Research
ICF	Integral Coach Factory
ICOR	Incremental capital output ratio
ICTs	Information and communication technologies
IFSC	International Financial Services Centre
IIFCL	India Infrastructure Finance Company Limited
IL&FS	Infrastructure Leasing & Financial Services Limited
IMF	International Monetary Fund
IRSDC	Indian Railway Station Development Corporation
ISI	Import-substitution-industrialisation
KYC	Know your customer
LPG	Liberalisation, Privatisation and Globalisation

MEIS	Merchandise Exports from India Scheme
MGNREGA	Mahatma Gandhi Employment Guarantee Act 2005
MMT	Multimodal Terminal
MMTPA	Million Metric Ton Per Annum
MNEs	Multi-National Enterprises
MORTH	Ministry of Road Transport and Highways
MoU	Memorandum of Understanding
MOVCDNER	Mission Organic Value Chain Development North Eastern Region
MRTP	Monopolistic and Restrictive Trade Practice
MSME	Micro, Small and Medium Enterprises
MT	Million Tonnes
MTPA	Million Tonnes per Annum
MUDRA	Micro Units Development and Refinance Agency
NABARD	National Bank for Agriculture and Rural Development
NAFC	North Atlantic Financial Crisis
NBFCs	Non-Banking Financial Companies
NCAP	National Civil Aviation Policy
NCDEX	National Commodity & Derivatives Exchange Limited
NHB	National Housing Board
NHDP	National Highways Development project
NIFTY	National Stock Exchange Fifty Index
NIIF	National Investment and Infrastructure Fund
NIMZs	National Investment and Manufacturing Zones
NIP	National Infrastructure Pipeline
NPA	Nonperforming assets
NPE	National Policy on Electronics
NRI	Non-Resident Indian
NSO	National Statistical Office
NSSO	National Sample Survey Organization
OALP	Open Acreage Licensing Programme
OPEC	Organization of the Petroleum Exporting Countries
PDMC	Per Drop More Crop
PFCE	Private final consumption expenditure
PIB	Press Information Bureau
PKVY	Paramparagat Krishi Vikas Yojana
PM KPY	Pradhan Mantri Kisan Pension Yojana
PMC	Punjab & Maharashtra Co-operative Bank Limited
PMFBY	Pradhan Mantri Fasal Bima Yojana
PMGSY	Prime Minister’s Gram Sadak Yojana
PM-KISAN	Pradhan Mantri Kisan Samman Nidhi Yojna
PMKSY	Pradhan Mantri Krishi Sinchayee Yojana
PM-KUSUM	Pradhan Mantri Kisan Urja Suraksha Utthan Mahabhiyan
PMUY	Pradhan Mantri Ujjwala Yojana
POL	Petroleum, Oil, & Lubricants

PPP	Public Private Parternerships
PSBs	Public Sector Bank
RBI	Reserve Bank of India
RCEP	Regional Comprehensive Economic Partnership
RCS	Regional Connectivity Scheme
R&D	Research and Development
ReMS	Rashtriya e Market Services Private Limited
RKM	Route Kilometre
RKVY	Rashtriya Krishi Vikas Yojana
RTA	Regional Trade Agreements
RWBCIS	Restructured Weather Based Crop Insurance Scheme
S&P BSE	S&P Bombay Stock Exchange Sensitive Index
SAUBHAGYA	Pradhan Mantri Sahaj Bijli Har Ghar Yojana
SBRT	Single Brand Retail Trading
SCM	Smart Cities Mission
SDGs	Sustainable Development Goals
SEBI	Securities and Exchange Board of India
SEIS	Services Exports from India Scheme
SEZs	Special Economic Zones
SIDBI	Small Industries Development Bank of India
SMI	Surface Minor Irrigation
SPS	Sanitary and Phyto-Sanitary
SPV	Special Purpose Vehicle
TFP	Total factor productivity
TIES	Trade Infrastructure for Export Scheme
TPP	Trans-Pacific Partnership
TSPs	Telecom Service Providers
TTIP	Transatlantic Trade and Investment Partnership
UDAN	Ude Desh ka Aam Nagrik
USD	US Dollar
VfM	Value for money
WD	Watershed Development
WDFC	Western Dedicated Freight Corridor
WDRA	Warehouse Development and Regulatory Authority
WTO	World Trade Organisation
ZBNF	Zero Budget Natural Farming

Chapter-1

Introduction

"If we can appreciate our citizens' "purusharth" or their "goals of human persuit" filled with their inherent desire to progress led by the dedicated leadership present in this House, the target is eminently achievable."…………

यकीन हो तो कोई रास्ता निकलता है, हवा की ओट भी लेकर चिराग जलता है

Smt. Nirmala Sitharaman, Union Minister of Finance while presenting the Budget speech on 05 July 2019

Prime Minister Shri Narendra Modi while presiding over the 5th governing Council meeting of NITI Aayog on 15 June 2019 emphasized that the goal is to realize the potential of our great country, to create a New India by 2022 and **a USD five trillion economy by year 2024**. My dissertation is dedicated to study various key challenges and the way ahead in achieving five trillion GDP of Indian economy in next five years which is the target set by the Prime Minister (NITI Aayog, 2019, June 15).

The first woman full time Finance Minister Nirmala Sitharaman in her maiden budget presented on 05 July 2019 said that our economy was at approximately USD 1.85 trillion in year 2014. Within 5 years it has reached USD 2.7 trillion. Hence it is well within our capacity to reach the USD 5 Trillion in the next five years (Ministry of Finance, 2019, July 05).

Making India USD 5 trillion economy is a difficult target and quite challenging but achievable by proper implementations of schemes and decisions. The Prime Minister shared his views on 06 July 2019 in Varanasi and said his government's Budget for 2019-20 lays down a roadmap for nearly doubling the size of the Indian economy to USD 5 trillion in five years by raising per capita income, boosting consumption and increasing productivity. On the questioning of the need for becoming a USD 5-Trillion Economy, he said "*Size of the cake matters. The larger the cake, larger pieces are what people will get. So we have set a target of making India a USD 5-trillion economy. Larger the size of the economy will be, the larger prosperity will it bring for the country, while there should be debate and criticism on ways and means of achieving the goal, but questioning the target of building a USD 5 trillion economy is wrong*". Earlier India was walking, but new India will be running as per the words of PM Modi. ("PM slams professional pessimists", 2019).

The economy of India is a developing Mixed economy. Before discussing the challenges and way ahead for achieving the target of USD 5 trillion economy, it is important to detail the journey of the Indian economy since colonial era and explain the growth story of the economy post independence period. After studying the challenges, shortfalls, various crisis particularly mid-sixties & pre reform period major economic crisis, reforms implemented post 1991 period, we hope to have a clear understanding of the challenges facing the Indian Economy and way forward for achieving the target. The rest of the chapter is organised as follows:-

(a) Section 2 traces the evolution of the Indian economy during the colonial rule, 60's, 70's till 1990. Section 3 presents the standard reforms since 1991.

(b) Section 4 describes the post-reform growth. The growth of Indian economy in last 5 years is described in section 5.

(c) The Statement of the Problem and Rationale have been described in Section 6 and 7 respectively.

(d) Section 8 & 9 provides the Research Objectives & Research Questions.

(e) Research Strategy and Design & Research Methods and Data Sources have been described in Section 10 and 11 respectively.

(f) Research Limitations have been provided in Section 12.

1.2. Indian economy during colonial rule

The pre-Independence period was a period of stagnation for the Indian economy. British ruled over India for almost two hundred years. India's colonial past has dominated heavily in her development since 1947. British rule drastically transformed India in the area of economics. A. Gunder Frank has described the changes under British Rule as the 'development of underdevelopment.' These changes in agriculture, industry, transport and communication, finance, administration, education and so on-were in themselves often positive, as for example Railways. But operating within and as part of the colonial framework, they became inseparable from the process of underdevelopment. Further they led to the crystallization of the colonial economic structure which generated

poverty, a dependence on and subordination to Britain (Chandra, Mukherjee & Mukherjee, 1999, pp. 9-19).

India's agricultural and industrial development suffered heavily during British Rule. Agriculture stagnated and deteriorated across all over India and deteriorated over the years, which has resulted in low productivity and yields per hectare. Poverty, illiteracy, bad agriculture output had further worsened the future transition to self-sustained growth most difficult. The first industrial revolution had taken place two hundred years before. The other countries had already industrialized hundred years before Indian late entry in modern Industrial transformation that too within a democratic framework.

1.2.1. **Economy state during 60's after independence**

When India got independence, the economy was trapped in a vicious circle of poverty. Per capita consumption and income levels were lowest among the world economies resulting into less saving and capital formation and therefore, low productivity and low income level. This vicious circle escalated poverty in the country. Due to low income and limited size market conditions, low investment by business firms has further deteriorated the condition of mass poverty. At the time of independence 85% population was living in villages and 72% of total workforce was occupied in agriculture. Less than 11 percent of the total working force was occupied in all the forms of industry, less than 8% was employed in trade and transport, less than 10% in other services which clearly shows low level of industrialization. Immediately after independence the main concern was to control persistent and severe inflationary pressures and to

alleviate shortages of essential food items which had been aggravated by the partition of the country in 1947 (Kapila, 2019, p. 33).

Planning commission was established on 15 March 1950. Progress on several sectors was made during first phase of development effort which was spread over three five year plan period i.e. by mid sixties. India's national income grew at an average rate of about 4% per annum between 1951 to 1965 which was almost four time rate of growth achieved during last half century of British Rule. In the agriculture sector the land reform measures, setting up of massive network for agriculture extension and community development work at village level, large infrastructure investment in irrigation, power, agriculture research led to 3% growth per annum. India, unlike other countries China, Japan, Korea, Taiwan, Soviet Union, Britain had achieved its land reforms and agriculture growth in the context of civil liberties and a modern democratic structure. However this was not sufficient to meet growing demand of agriculture produce, necessitating increased imports of food grains during first three five year plans. Industry grew at a growth rate of 7.1 % per annum between 1951- 1965 (Chandra, Mukherjee & Mukherjee, 1999, pp. 344-345).

1.2.2. **Mid Sixties Crisis**

The Mid-Sixties crisis of two successive droughts of 1965 & 1966 and two wars of 1962 (China) and 1965(Pakistan) added huge burden on agriculture resulting in fall of Agriculture output by 17 percent and food grain output by 20 percent. Inflation rate rose to 12% per annum between 1965 to 1968 and food prices rose to 20% per annum. In response to Indo-pak war, US refused to renew the PL-480(wheat loan) agreement on a long-term basis. Severe tightening of the belt

i.e. drastic cut in Government Capital expenditure from 1966-71was an important factor in continued Industrial recession in which Industrial growth rate coming down to 4.99 % between 1966-1974. With the Green revolution strategy of introducing a package of High Yield variety (HYV) Seeds, fertilizers and other inputs in a concentrated manner to some suitable select areas resulted in creating food security and poverty reduction. Food grain production rose to 35% from 1967-71 and net food import fell down. Food availability continued to rise sharply and food stock had crossed 30 million tonnes mark by mid Eighties, putting an end to India's 'begging bowl' image and creating considerable food security even to meet extreme crisis situation. Apart from food self sufficiency, certain other features emerged that pointed towards a greater autonomy of the Indian economy and increased self reliance.

After the crisis of Mid-Sixties, 1971 war with Pakistan had resulted into massive burden of ten million refugees from East Pakistan (now Bangladesh) taking shelter in India. Thereafter two droughts of 1972 and 1974, the major Oil shock of 1973 leading to quadrupling of Oil prices, Oil shock of 1979 when oil prices doubled, the disastrous harvest of 1979-80 caused by worst drought, successive droughts of 1987 and 1988 has adversely affected the growth of Indian economy. The prolonged efforts made after mid-sixties to improve balance of payment, create food security, introduce anti poverty measures and reduce dependence on imports for crucial inputs like oil had strengthened our economy to deal with impact of war, droughts, oil crisis without getting into debt crisis and a recessionary spin as happened in the case of a number of developing countries like Latin America and China. Rapid extension in the indigenous goods industry, which started in the Nehru years, had significantly reduced

dependence on foreign countries for maintaining rate of investment. During 1969 banks were nationalized and number of branches of commercial banks rose to 35,707 in 1981. More than 60% of massive branch expansion of the Indian banks was in rural areas which had created a much wider base for mopping up savings but also for extending credit to agriculture and the poor households as part of ' Garibi hatao' campaign. As a result rates of domestic savings and investment increased rapidly and doubled by 1979-80. The eighties and Nineties witnessed further increase in rates of domestic savings and capital formation, making them comparable to several high growth economies. Industrial growth rate started picking up from 3.4% between 1965-75 to about 5.1% between 1975-85 and remained at a healthy average of about 8% per annum in the eighties. Phenomenon increase in new stock market issues was a new development due to which capital market was about 7.25% of Gross Domestic savings of 1989-90 (almost seven times from 1981).

1.2.3. **Economy crisis at the edge of default**

There were certain long term structural weaknesses building up which were to add up to a major crisis by 1991 when the country was on the verge of defaulting. There were three sets of problems mainly accounted for this crisis. The import-substitution-industrialisation (ISI) strategy based on heavy protection to indigenous industries was leading to inefficiency and technological backwardness in Indian Industry due to excessive protection through import restrictions. The situation was further worsened by 'License –quota Raj' i.e a whole plethora of rules, regulations and restrictions which stifled entrepreneurship and innovation. MRTP (Monopolistic and Restrictive Trade

Practice) Act 1969 and the reservation of sectors for small scale industry went against the basic principle of economies of scale, which is the heart of capitalist development. Reserving certain area for Small Scale Industries deprived from the advantages of scale and larger resources for Research & Development activities. Industry neither could expand in domestic market nor were the ISI policies encouraging them to exploit foreign markets. The large Public sector in India also began to emerge as a major source of inefficiency due to political and bureaucracy pressure, irresponsible trade unionism and continuous loss making. No exit was possible for inefficient loss making companies as they could not close down or retrench without government permission. The government ended up taken over many 'sick' companies which otherwise needed to be closed down. This has led to very low investment efficiency in India. Capital used per unit of additional output or the incremental capital output ratio (ICOR) kept rising to a level of 5.6.

The controls, restrictions, intervention etc. were often resorted to in the name of introducing socialist principles and equity but actually ended up building a distorted, backward capitalism, as they went against the basic laws of capitalism such as the need for continuous expansion on the basis of innovation and efficient investment. Failure to make a timely shift from the export pessimism inherent in the first three plans and to respond adequately to the new opportunities thrown up by the changing world situation resulted into poor export volume lagging far behind the potential created by the world expansion trade. India's share in world exports shrunk from about 2.4% in 1948 to 0.42 % in 1980.

The gradual erosion of fiscal prudence was reflected in government expenditure rising consistently, mainly because of the proliferation of subsidies and grants, salary increases with no relationship to efficiency or output, overstaffing and other populist measures such as massive loan waivers. Growing political instability and political competition led to competitive populism with each party trying to outdo the other in distributing subsidies or waivers. The national front government announced a loan waiver costing more than Rs. 100 billion in year 1989. At one side there was huge growth in government spending and at other side the savings generated by the government or public sector kept decreasing with their growing losses. The growing government saving-investment gap and the fiscal deficit had adversely affected impacted on balance of payments and debt situation. The prejudice against Foreign Direct Investment, led to this excessive dependence on foreign debt rather than foreign equity capital, and inadequate returns on the borrowings led to an unsustainable debt service burden.

India's foreign exchange reserves fell from $ 5.85 billion in 1980-81 to $ 2.24 billion in 1990-91, enough only for one month's import cover. International credit rating of India was downgraded resulting into raising credit abroad. NRI deposits in foreign exchange began to be withdrawn rapidly. The country faced severe economic crisis due to Balance of payment (BoP) problem. In this crisis, where foreign lending had virtually dried up, the government was forced to sell 20 tonnes of gold to the Union Bank of Switzerland in March 1991 foreign exchange reserves were down to a mere two weeks import cover despite loans from IMF. The fiscal deficit was more than 8 percent in year 1990-91. The

country was at the edge of ‘default’ (Chandra, Mukherjee & Mukherjee, 1999, pp. 351-364).

1.3. <u>**Structural reform of 1991**</u>

The 1991 crisis paved the way for initiating revolutionary economic reforms and structural adjustments to remove the rigidities that had entered various segments of Indian economy. On 24 July 1991 while delivering the Budget speech, the finance Minister Manmohan Singh narrated a famous saying of Victor Hugo “no power on earth can stop an idea whose time has come.” The new model of economic reform which is commonly known as the LPG or Liberalisation, Privatisation and Globalisation model was provided to revive the Indian Economy. Nearly thirteen year after communist China changed a course, Economic reforms were initiated in India in a democratic way unlike China.

As a first step in this direction, the Government had introduced changes in import export policy, aimed at a reduction of import licensing, vigorous export promotion and optimal import compression. Industrial Licensing was abolished for all industries, except for a specified list irrespective of level of investment. It was decided to liberalise the policy regime for direct foreign investment up to 51 % foreign equity to expose our Industrial sector to competition from abroad in a phased manner and to provide access to capital, technology and market (Mohan, 2017, pp. 26-28).

The thrust of the reform process was to increase the efficiency and international competitiveness of industrial production, to utilise for this purpose foreign investment and foreign technology, to increase the productivity of investment, to

ensure that India's financial sector is rapidly modernised, and to improve the performance of the public sector, so that the key sectors of our economy are enabled to attain an adequate technological and competitive edge in a fast changing global economy. The Government had decided to further promote the development of mutual funds by throwing the field open to the private sector and joint sector mutual funds. To make public sectors engine of growth rather than an absorber of national savings without adequate return it was decided to review and concentrate operations in areas those were strategic for the nation, require high technology for the economy, and were essential for the infrastructure. In order to raise resources, disinvestment in Public sectors companies through the public floatation of shares was started. Intention for closure action on sick public sector enterprises through the Board for Industrial and Financial Reconstruction (BIFR) was made. Monopolistic and Restrictive Trade Practices (MRTP) Act was also abolished. The 1991 economic reforms were an attempt to free the economy from stifling internal controls as well as equip it to participate in the worldwide globalization process to its advantage.

1.4. **Post-reform Indian Economy growth**

India performed one of the fastest recoveries from a deep macroeconomic crisis as a result of reforms due to which GDP rose to 5.3% in 1992-93 from 0.8% in 1991-92 and rose further to 6.2% in 1993-94 & average rate of 7.5% for the next three years. Industrial production picked up to unprecedented 12.8% in 1995-96 from less than 1% in 1991-92(Chandra, Mukherjee & Mukherjee, 1999, pp. 365-373).

The Economy slowed down to an average rate of 5.4% in 1996-97 nearly upto 2002-03 due to the East Asian crisis, Japan in recession and other countries showing negative growth rates and all these also contributed to worsening of investment climate. The economic reforms had slowed down during this period.

The National Highways Development project(NHDP) and the Prime Minister's Gram Sadak Yojana (PMGSY) were initiated in year 2000 and since then significantly contributed in nation's growth with improved connectivity between major cities at one hand and within rural areas on the other . During five year period from 2003-04 to 2007-08 the economy grew at 8.7%, the best phase in growth, as a result of fiscal consolidation, progressive reduction in fiscal deficit a benign investment climate, strong global demand, restructuring measures by domestic industry, improved corporate profitability, marked acceleration in both public & private investment, broad based growth in key areas like agriculture, industry and services. Infrastructure investment was also stepped up by about 1% of GDP which also contributed to high growth in manufacturing and trade.

Comparatively slower growth in UPA-II was partly a reflection of global downswing and 'policy paralysis'. Gross fiscal deficit increased from 2.5% in 2007-08 to 6.5% in 2009-10 due to North Atlantic Financial Crisis (NAFC) and continued to be above 4% till 2014-15. From 2008-09 to 2015-16 economy grew at an average rate of 7.2%. India witnessed sub 5% growth in two consecutive years in 2012-13 and 2013-14 in succession which was last witnessed a quarter of century ago in 1986-87 due to increased revenue expenditure(particularly in subsidies) while keeping capital outlays stagnant, high inflation, high nominal interest rate, emergence of policy bottlenecks and widening of current account

deficit. The near collapse of manufacturing growth averaged at 0.2% per annum in 2012-13 and 2013-14 was also witnessed (Kapila, 2017, pp. 273-282).

1.5. **Indian Economy in last five years**

The GDP growth rate accelerated to 7.5% and 8.0% in 2014-15 and 2015-16 respectively. However the growth rate remained at 7.1% and 6.7% in next two years in 2016-17 and 2017-18 due to the effect of demonetisation and GST. GoI had announced demonetisation on 08 November 2016 to curb corruption, counterfeiting, the use of high denomination notes for terrorist activities, and especially the accumulation of "black money", generated by income that has not been declared to the tax authorities. The transformational Goods and Services Tax was launched in July 2017 which has added a new dimension to center-state and inter-state financial relations and introduced the concept of one market one tax throughout the country. The Insolvency and Bankruptcy Code (IBC) was introduced in 2016 to address the issue of non-performing assets and improve the overall business culture.

On 1st January 2015 GoI abolished planning Commission and created the NITI Aayog (National Institution for Transforming India) which serves as a 'Think Tank' of the government - a directional and policy dynamo. NITI Aayog has helped institutionalize cooperative federalism and provided governments at the central and state levels with relevant strategic and technical advice across the spectrum.

More than 35 crore bank accounts have been opened under Pradhan Mantri Jan Dhan Dhan Yojana (PMJDY) for direct bank transfer to the intended

beneficiaries of MGNREGS, NSAP, PMAY-G, various scholarships and subsidy schemes. More than 70 million LPG connections have been released to BPL- women residing in more than 700 districts under Pradhan Mantri Ujjwala Yojana(PMUY). Ayushman Bharat Yojana(ABY) at a nominal premium of Rs. 100 per month was introduced in 2018 to provide Rs. 5 lakh insurance cover for cashless treatment to BPL families.

As per the Economic survey 2018-19 (Ministry of Finance, 2019), India became the sixth largest economy by sustaining growth rates higher than China, thereby earning the epaulette of being the fastest growing major economy in the world. The creation of physical infrastructure accelerated significantly during 2014-19. Electricity finally reached every village in India in April 2018. The UDAAN Scheme was launched in 2017 to foster regional connectivity. The GDP growth rate is 6.1% in 2018-19.

The Economic Survey 2018-19 has been guided by the dictum of a new approach of 'Blue Sky Thinking' with blue cover page. As per the Preface of Survey it adopts an unfettered approach in thinking about the appropriate model for India. The phrase 'Blue sky thinking' means to have creative ideas that are not constrained by preconceptions and come up with solutions that haven't been considered previously. The term is similar in meaning to 'thinking outside of the box'. It is sometimes used in an alternate form, 'big sky thinking'. To achieve the vision of #Economy@5trillion, India needs to shift its gears to accelerate and sustain a real GDP growth rate of 8%.

1.6. **Statement of the Problem**

(a) Indian Economy was sixth largest economy in the world in year 2019 as against the 11th position five years ago. In Purchasing Power parity terms, India is 3rd largest economy, only next to China and the USA. It took 55 years for the Indian economy to reach USD 1 trillion, whereas in last five years it added 1 trillion dollar. Today we are nearing a 3 trillion dollar level. Prime Minister Shri Narendra Modi while presiding over 5th governing Council meeting of NITI Aayog on 15 June 2019 emphasized that the goal is to realize India's vast potential to create a New India by 2022 and a USD five trillion economy by year 2024. If India will become USD 5 trillion economy by year 2024, then India will be 3rd largest economy after US and China.

(b) The growth journey of Indian economy; various challenges faced by it & the measures/economic reforms taken by the government of the day to revive the economy since colonial rule presented in the introduction part of the proposal is detailed in section 2 to section 5 above.

(c) The current slowdown in the Indian Economy and sluggish global growth is a cause of concern, therefore many economists are wary of the $5 Trillion target of government.

1.7. **Rationale**.

Budget 2019-20 lays down a roadmap for nearly doubling the size of Indian economy to USD 5 trillion in next five years. Hence there should be a debate and critical analysis on ways and means of achieving the target. To achieve USD 5 trillion economy target India needs to sustain a real GDP growth rate of 8%

over the next five years as per the Economic Survey tabled by the Union Finance Minister in Parliament on 04 July 2019. It is therefore proposed to analyse the challenges and chalk out a road map for achieving the target of $ 5 trillion GDP. The study will provide suggestions and policy recommendations to the Government to help achieve this target.

1.8. Research Objectives

a) To highlight reforms needed for doubling the size of Indian economy based on the past performance.

b) To identify various factors (both domestic and global including oil prices) responsible for slowdown of Indian Economy.

c) To examine the measures undertaken to boost domestic demand, consumption and investment to achieve the target of $ 5 trillion and examine both the cyclical and structural factors affecting growth.

d) To identify

   i. Structural reforms needed in trade (including exports), Industry and Infrastructure

   ii. Major structural changes and reforms required in Agriculture with emphasis on doubling the farmer's income and turning farmers into exporters of farm produce and value added products.

e) To document steps taken to increase liquidity in the economy and increase credit off take including the measures taken for ease of doing business and promoting FDI.

1.9. **Research Questions.**

a) What measures are required to drive economy towards five trillion GDP and steps taken by the government towards achieving this target?

b) What are the reasons for slowdown of the economy & challenges involved in achieving the target of $ 5 trillion?

c) What measures have been taken to boost Agriculture, trade (including export), industry and Infrastructure?

d) How to increase demand, consumption, investment to revive the economy?

e) What is the effect of rising oil prices on Indian Economy?

1.10. Research Strategy and Design.

(a) **Research Strategy**. The research strategy is both qualitative and quantitative in approach.

(b) **Research Design**. The research design is descriptive and exploratory in nature. It will be largely research based on secondary sources of information (Both national and international). The study will also attempt to compile useful information pertaining to the target of achieving of the $5 trillion economy by interviewing key stakeholders both in the government and private sector including experts working in this area.

1.11. Research Methods and Data Sources

Secondary data will be compiled from various sources including the websites of the Ministry of Finance, Ministry of Commerce and Industry, Reserve Bank of India, reputed journals in the area of economic reforms, consultancy reports prepared by Pwc, Deloite etc and from various issues of the Economic Survey of

the Government of India, Budget documents. International sources would include compilation of data from World bank, International Monetary Fund, ADB to collect information on the various global factors including oil. Research journals, working papers etc. from various think tanks will also be studied. Primary data would be collected through semi-structured interviews of key stakeholders both in the government and private sector including experts working in this area. A short questionnaire will be prepared for the purpose of interview.

1.12. Research Limitations/Delimitations. Few limitations of the research process are anticipated. These limitations are as follows:-

(a) Implementing 5 Trillion economy is a relatively new target which was announced recently in June 2019 and therefore it would be too early and difficult to forecast the challenges given the current slowdown which is both cyclical and structural.

(b) Economy is a vast subject and involves various sectors, therefore the research will be focused on the key areas specified in Research Objectives due to time and resource constraints.

(c) Limited and restricted availability of policy makers and key stake holders (Govt of India, CEA, NITI Aayog, RBI, SEBI and Industry captains) for interview.

Chapter-2

Literature Review

According to the Fifth Governing Council Meeting of NITI Aayog (Press Information Bureau, 2019) the Prime Minister emphasized that the goal is to realize the potential of this great country, to create a New India by 2022 and a USD five trillion economy by 2024. He emphasized the need for every state to focus on increasing its share in the country's GDP by evaluating the export potential of the state and determining the steps necessary for increasing exports and boosting employment.

Press Information bureau (2019, July 4) print release states that Economic Survey 2018-19 calls for a sustained GDP growth rate of 8% for India to become a USD 5 trillion economy by 2024-25. Economic Survey says "India's Economy has performed well during last 5years". Underlying theme of survey is for "Shifting of Gears" to enter into a Virtuous cycle for a sustained economic growth, Virtuous cycle is to be of savings, investment and exports supported by favourable demographic phase. It says "When the economy is in a virtuous cycle investment, productivity growth, job creation, demand and exports feed into each other and enable animal spirits in the economy to thrive." The survey highlights the need to model the different elements of the economy simultaneously in an integrated manner with assimilation tools like behavioural economics and pursuit of other new concepts for enhancing productivity and efficacy of welfare programmes. The survey also suggests strengthening the legal system may be the best investment Indian reformers can make.

According to the budget speech of Smt Nirmala Sitharaman Minister of Finance (2019, July 05) it took over 55 years for the Indian economy to reach 1 trillion dollar, in 5 years we have added 1 trillion dollar so if we can appreciate our citizen's "purusharth" or their "goals of human pursuit" filled with their inherent desire to progress led by the dedicated leadership present in this house, the target is eminently achievable.

Subramanian & Jain (2019) suggest that investment, especially private investment, is the key driver that drives demand, creates capacity, increases labour productivity, introduces new technology and generates jobs. This is another departure from traditional economic thinking based on consumption-led economic growth. Subramanian (Chief Economic Advisor) and Jain (Director, MoF) state that the survey appreciates the role of policy nudges in influencing the behaviour of an individual to achieve optimal outcomes and ease of doing business at the micro level to lend vibrancy to economic growth at macro level. The authors highlight low pay and wages inequality remain serious obstacles towards achieving inclusive growth. An effective minimum wage policy can help in driving up aggregate demand and strengthening the middle class, and thus spur a phase of sustainable and inclusive growth.

Rajan, Banerjee, Gopinath & Sharma (2019), the group of top economists including ex-RBI governer, in their book offered the way ahead for 'what the economy needs now'. While we have performed creditably in the last twenty-five years across different administrations, we should not be satisfied with this. India is still one of the poorest countries in G-20. Macroeconomic stability, fiscal consolidation to create space for investment, reduce risks from the external

sector, fixing the stressed sectors like Agriculture and rural economy, infrastructure, power, Exports and banking are the areas needing attention. The authors suggested making growth inclusive and sustainable through education, dealing with skill shortage, women empowerment, healthcare, environment protection & climate change and efficient social protection.

Ahluwalia (2019) has suggested some of the critical policy challenges that need to be addressed if the Indian economy is to realize its full growth potential over the next decade and more. His estimates that in the second post reform period 2003-17, India grew significantly faster than the ASEAN 10, but still slower than China, though the gap narrowed. Some of the priority areas emerging from paper are Macroeconomic stability, increase the rate of investment in Infrastructure, resolution of constraints in PPP, invest more in health and education, GST reforms(multiple rates & several exclusions), strategic investment in PSBs, etc.

Kapila (2017, p. 313-315) in her book describes that India's growth record since independence suggests that it is capable of recording sustained growth over a long period, even if it is punctuated by some periods of lower growth because of business cycles or other reasons. Returning India to a high growth path is therefore quite feasible but it will need much more focused attention to the revival of manufacturing and to accelerating investment in transport and infrastructure, particularly in railways.

Rao (2019) in his research paper has summarized that clear road map for accelerating growth needs to be worked out by government for creating a virtuous cycle of saving and investment and the narrative of reaching $ 5 trillion economy.

Sheel (2018) suggested that strong, independent, well functioning institutions at arms length from government inspire investor confidence. The author argues that although growing at rates that are globally enviable, the Indian economy has been unstable over the last several years.

Dilip (2019) states that a key enabler to the target of 5 trillion economy is having the requisite skilled manpower in the various sectors that would drive this growth. There are various key central and state-specific skill development programmes. The Skill ecosystem which has been created could also address the needs of those firms who find it difficult to identify the right people to employ.

In respect of achieving the target of $5 trillion by 2024-25 a series of key reforms have been announced by the government since 23 August 2019 and below mentioned economic reforms are consolidated based the review of government websites:-

a) Press Information bureau (2019, August 23) Press release has highlighted various measures announced by government like facilitating wealth creators, taxation measures, upfront release of Capital Rs. 70,000 Cr, additional lending and liquidity of Rs. 5 lakh Cr. To PSBs, One Time settlement policy to benefit MSMEs, GST refund within 30 days, increasing capital flows and inter-ministerial task force for modern Infrastructure to boost the Indian economy.
b) Union cabinet has approved the proposal for review of FDI on various sectors including Coal Mining, Contract manufacturing and Single Brand Retail Trading and Digital Media to further consolidate gains under FDI in

order to make India a more attractive FDI destination (PIB (2019, August 28)).

c) Press Information bureau (2019, August 30) Press release has highlighted banking sector reforms like PSBs Boards empowerment and amalgamation of 10 PSBs into 4 PSBs for strong national presence, unlocking potential through consolidation & global reach.

d) In order to provide hassle-free tax environment to the startups, a series of announcements have been made by Finance Minister in Budget and CBDT has issued circular no. 22/2019 for ease of compliance of start-ups (PIB (2019, September 02)).

e) To pump liquidity in the market to boost demand, MoF held meeting with heads of all CPSEs and FAs of Infrastructure Ministries for providing boost to the economy (PIB (2019, September 06)).

f) A task force has been constituted under the chairmanship of Secretary (DEA) to draw up a National Infrastructure Pipeline for each of the year from 2019-20 to 2024-25 (PIB (2019, September 07)).

The *Economic Survey 2019-20* states "India's aspiration to become a $5 trillion economy *depends critically on strengthening the invisible hand of markets together with the hand of trust that can support markets*. The invisible hand needs to be strengthened by promoting pro-business policies."

Subramanian, A. & Felman, J. (2019) in their working paper proposed several strategies to halt the current vicious economic spiral, the most critical one being to address the Four Balance Sheet challenge – the stress in banks and NBFCs on the financial side, and infrastructure companies and real estate on the corporate side. The

authors suggested policies need to act on the 5 ‘R’s: (a) Conducting a new Asset Quality Review to cover banks and NBFCs (Recognition) (b) Making changes to the IBC to ensure that participants actually have incentives to solve the problem (Resolution) (c) Create two executive-led public sector asset restructuring companies (“bad banks”), one each for the real estate and power sectors (Resolution) (d) Strengthening oversight, especially of NBFCs (Regulation) (e) Linking recapitalization to resolution (Recapitalization) (f) Shrinking public sector banking (Reform)

Rangarajan, C. & Dev, M.S. (2020), suggests that at the macroeconomic level, economic growth and pattern of growth are important and they can lead to faster reduction in poverty. With respect to Agriculture, market reforms to improve terms of trade, measures to improve low productivity and consolidation of landholdings can raise growth and incomes of agricultural households. Targeted programmes of supplementary income may have a positive impact on poverty. But at the macro level, ultimately growth and pattern of growth matter and they have the maximum impact in ameliorating poverty (Rangarajan & Dev, 2020, p. 74).

Ranganathan, T. & Raghavan, S.(2019) in their book submit that unless a more business friendly ecosystem gets created, the system will not witness enough numbers of domestic entrepreneurs trying to upscale and move up the value chain, or small and medium foreign enterprises seeking to invest in manufacturing in India because of our low wage costs. Most modern manufacturing involves value chains which emanate not necessarily from the ‘large final manufacturer’ but also from the ‘intermediate component’ supplier. Only when the large and medium each grow, do the smaller sub-suppliers get uplifted and this goes on in a continuum, depending on the complexity.

Indian MSMEs start small and, as they do not earn enough to reinvest large amounts, they on the average, remain small and even their clusters remain small. India's Gross domestic expenditure on Research & Development is at 0.8%, which is a cause of worry.

Kelkar, V., Shah, A.(2019) have covered wide areas on how to get back on the growth turnpike. The authors in their book *"In service of the republic"* write about the art and science of Economic Policy. In India, the modernization of the political system and the economy is taking place at the same time- and feeding into each other. In this process, economic policy strategy must serve the larger objective of building the republic. In the short run, central planning and state led development can yield GDP growth. But as the economy becomes more complex, the need for state institutions that reshape incentives becomes even greater. We should persue institution building rather than GDP growth. Sustained improvement in institutional quality is hard, but it is the only way to obtain sustained GDP growth.

Swamy, S. (2019) suggests various solutions to go on the path of above 10 percent GDP growth rate. The rate of Investment, (including FDI) has to rise to 38 percent of GDP from the present 29 percent. Of this household savings are the bulk of India's national savings at 80 percent of the total which have dropped from a high of 34 percent of GDP in 2014 to 28 percent in 2018. We will also have to accelerate growth in the manufacturing, services and exports sectors to wean labour away from agriculture. This will result in higher productivity and income for farmers.

Ahluwalia (2020) in his book "Backstage" suggests that we will have to work hard for higher growth and carry out many reforms that have been held up for one reason or the other. Once the economy gets into the middle income range and attains a degree of

complexity and sophistication, another set of 'second generation' reforms are needed to ensure that rapid growth is sustained. These reforms include stronger institutions and much greater investment in human resources to help realize the full efficiency gains possible in a market economy.

Research Gap

There are several studies which have analyzed the impact of the economic reforms process on the Indian economy especially on growth and investment since 1991. However, there are no studies which are focused on the issues and challenges that will be faced by India in the next 5 years in becoming a $ 5 trillion economy. The study is the first of its kind and largely based on the recent measures undertaken by the government in achieving the set target of $ 5 trillion economy.

Chapter-3

External Sector Reforms including Oil Prices

3.1.1 Need for viable External Sector

A viable external sector is an important component of a successful development strategy. It is indeed the cornerstone of all efforts at achieving self-reliance, which is one of the objectives of the government. Historically, India's economic relations with the rest of the world has been characterised by a certain degree of insulation from the international economy. This has, however, not prevented the periodic emergence of balance of payments crises, the latest of which was in 1991-92. The liberalisation of the external sector, following the crisis of 1991-92 indicated a substantial shift in the approach to India's external economic relations, the lessons from which need to be carefully considered in planning for the future. The balance of payments outcome is closely influenced by macroeconomic, fiscal and monetary policies. Prudent macro-policies, of which control of the fiscal deficit, particularly the revenue deficit, is a central element, are not only essential for internal balance but also for external balance. Excessively high tariffs on imports often impart an anti-export bias to policies through cost escalation of imported inputs essential for exports and through pre-emption of domestic resources for the relatively high cost production of importables in the domestic economy by increasing their profitability relative to exportables. The small scale sector, can effectively utilise export opportunities and generate high quality employment opportunities through the export of labour intensive items.

The actual balance of payments outcome will no doubt depend on developments in the world economy - for example, the state of international commodity prices

including that of oil, world growth and the state of the international capital market, which have important bearing on India's exports, imports, invisible earnings (especially remittances), foreign investment flows and non-resident deposit flows. These are exogenous factors which are beyond the control of the country. However, the development strategy, the policy environment and internal macroeconomic balance will also be crucial determinants of the balance of payments outcome. The maintenance of an appropriate policy-mix is essential for consolidating and building on the strength of the external sector. Such an appropriate mix requires a close and concerted coordination of fiscal policy, monetary policy, exchange rate policy, export-import (EXIM) policy, industrial policy, foreign investment policy, external borrowing policy and external assistance policy. Furthermore, a restructuring of the policies with reference to the oil sector would be required. Large fiscal deficits entail high government borrowing held by the Reserve Bank of India (RBI), leads to an acceleration of growth in money supply, and this, in turn, fuels inflation. Otherwise, they tend to raise the rate of interest, increasing the domestic cost of production. As a result of either effect, Indian exports become less competitive. Therefore, it is important for successful balance of payments management that the consolidated general Government fiscal deficit is steadily brought down.

The monetary policy stance of the RBI has to strike a fine balance between providing for legitimate credit needs of Government and productive sector versus controlling inflation and maintaining orderly conditions in the foreign exchange market. If money credit conditions are too loose, domestic demand will strengthen inflationary expectations and varying spreads between domestic and international interest rates will cause the Rupee to depreciate in a disorderly fashion along with excessive loss of foreign currency reserves. The more success that is achieved in reducing the fiscal

deficit and pressures on the credit market from excessive demand from the public sector, the greater will be the scope for extending credit to productive sectors of the economy without endangering external payments balance.

The rapid growth of GDP would be associated with an expanding export market which supports high growth of economic activities in which the country has a comparative advantage, particularly those which are labour intensive in nature. The emphasis on exports goes beyond the need for generating foreign exchange earnings for meeting unavoidable imports, and determines to a large extent the entire production structure of the economy.

First, explicit account has to be taken of the fact that India, as a signatory to the World Trade Organisation (WTO), is committed to becoming a more open economy within a stipulated time-frame. Prime Minister during the BRICS Business Forum on 14 November 2019 at Brazil said that India is the most open and investment friendly economy in the world due to political stability, predictable policy and business friendly reforms. By 2024, we want to make India a five-trillion-dollar economy. The infrastructure alone requires $1.5 trillion investment.

3.1.2 Composition and direction of India's trade

Factor endowments, trade policies, technology, and movements in global commodity prices have had a strong bearing on the composition of India's trade over time. According to Economic Survey of India 2019, India's overall exports (Merchandise and Services combined) in April-March 2018-19 are estimated to be USD 535.45 Billion, exhibiting a positive growth of 7.97 per cent over the same period last year. Overall imports in April- March 2018-19 are estimated to be USD 631.29

Billion, exhibiting a positive growth of 8.48 per cent over the same period last year. Table 1 provides statistics on India's foreign Trade for last eight years.

TABLE 1: INDIA'S FOREIGN TRADE (MERCHANDISE) - US DOLLAR

(US $ million)

Year	Export			Import			Trade balance		
	Oil	Non-Oil	Total	Oil	Non-Oil	Total	Oil	Non-Oil	Total
2011-12	56038.5	249925.3	**305963.9**	154967.6	334352.0	**489319.5**	-98929.0	-84426.6	**-183355.7**
2012-13	60865.1	239535.5	**300400.6**	164040.6	326696.1	**490736.6**	-103175.4	-87160.6	**-190336.1**
2013-14	63179.4	251236.4	**314415.7**	164770.3	285443.3	**450213.6**	-101591.0	-34206.9	**-135797.9**
2014-15	56794.1	253557.9	**310352.0**	138325.5	309707.9	**448033.4**	-81531.4	-56150.0	**-137681.4**
2015-16	30582.6	231708.4	**262291.1**	82944.5	298063.3	**381007.8**	-52361.8	-66354.8	**-118716.7**
2016-17	31545.3	244307.2	**275852.4**	86963.8	297393.2	**384357.0**	-55418.6	-53086.0	**-108504.6**
2017-18	37465.1	266061.1	**303526.2**	108658.7	356922.3	**465581.0**	-71193.6	-90861.2	**-162054.8**
2018-19	46544.4	283525.2	**330069.6**	140918.4	373115.6	**514034.1**	-94374.0	-89590.5	**-183964.5**

Note : Data for 2017-18 are revised and for 2018-19 are provisional.

Source : Directorate General of Commercial Intelligence and Statistics

India's trade-GDP ratio was a mere 16.6% in 1980. India has become more integrated with the world economy since then. There has been marked improvement as trade-GDP ratio increased from 21.8% in 2000-01 to 43 % in 2017-18.

NITI Aayog's Three Year Action Agenda 2017-18 to 2019-20 states that till date there are only four developing countries that have successfully transformed themselves within three decades: South Korea, Taiwan, Singapore and China. In every one of these cases, exports have played a key role. China, with its population comparable to that of India, offers the most relevant example (NITI Aayog, 2017).

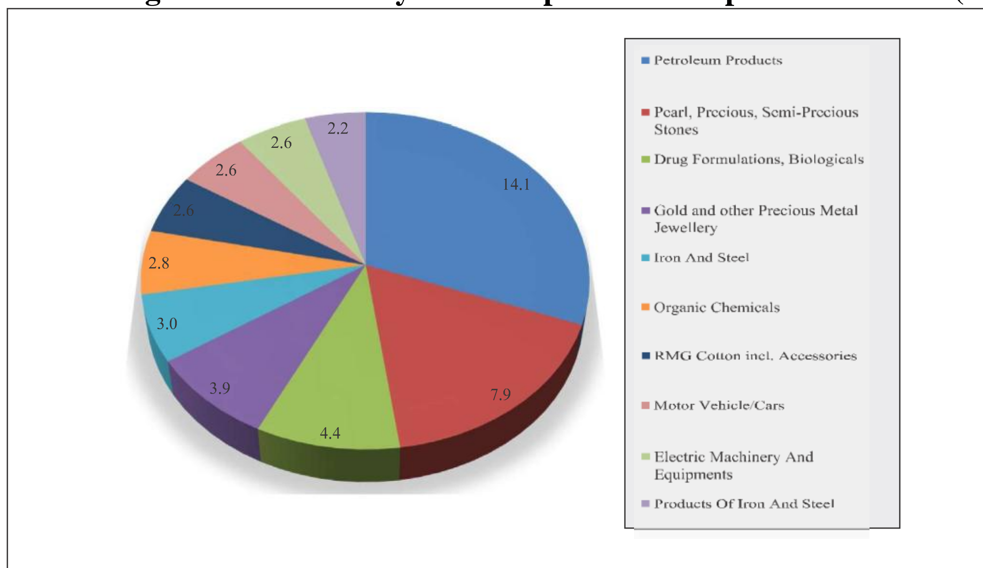
India's share in global trade (merchandise and services) was 2.1% (481.74 USD billion out of total 23,044 USD billion) for exports and 2.6% (600.62 USD billion out of total 23,112 USD billion) for imports in 2017. Exports have been growing on a regular basis since 2016-17 for almost three years and total exports reached a new peak of more than half a trillion dollars, for the first time in 2018-19 (Press Information bureau (2019, June 26) Press release).

Why do exports matter? On the demand side, Indian firms often complain that there is inadequate demand for their products. Yet, the world market in merchandise exports

at USD 16.6 trillion in 2015 is extremely large. Why are Indian firms not able to take advantage of this massive demand? The likely explanation is that their products are not competitive in the global economy. The flip side of this point is that the discipline of the global economy is what leads to fast productivity growth. Exporters must compete against the best in the world and must therefore constantly upgrade technology, management and product quality to remain competitive (Kapila, 2019, pp. 837-880).

Exporting firms must maintain high productivity, which translates in high wages for their employees. Non-exporting firms either become ancillaries of the exporting firms or must compete against them in the domestic market. In either case, they must achieve high productivity to survive, which allows them to pay competitive wages. Recognizing this critical role of exports in the creation of well-paying jobs, India needs a focused strategy for creating an environment in which export competitive firms can emerge, especially in labour intensive sectors.

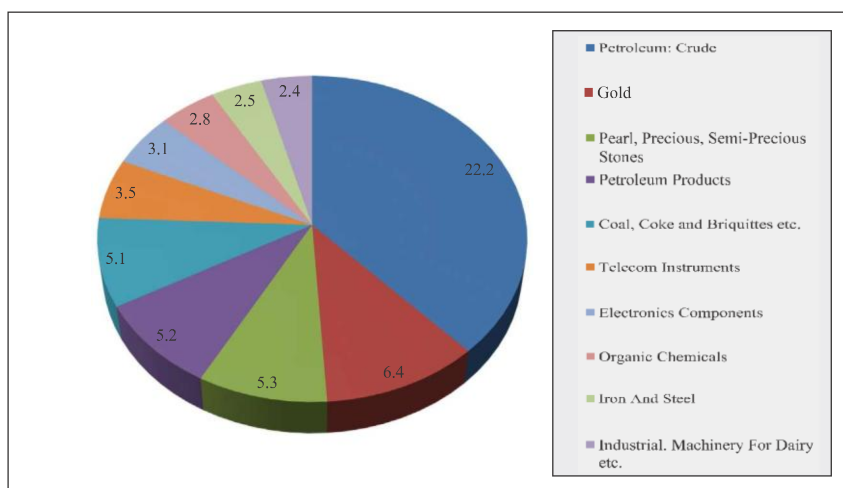
Figure 1: Commodity wise composition of exports in 2018-19 (Percent)



Source: DGCI&S, Kolkata

In 2018-19, petroleum products continued to be the largest exported commodity, in value terms, with a share of 14.1% in country's export basket. Other major exports included pearls, precious, semi-precious stones as also gold and other precious metal jewelry besides drug formulations, biological(Figure1).

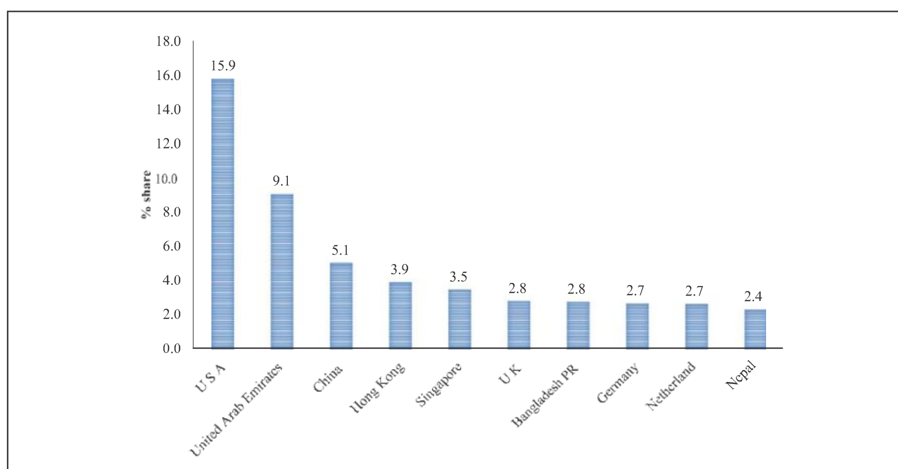
Figure 2: Commodity wise composition of imports in 2018-19 (Percent)



Source: DGCI&S, Kolkata

In the import basket of 2018-19, petroleum: crude, at 22.2% had the largest share followed by gold and other precious metal jewelry at 6.4% and pearls precious/semi-precious stones at 5.3%(Figure 2). Among the major trading partners India's largest export destination country continues to be the USA (16% in value terms) followed by UAE, China and Hong Cong (Figure 3).

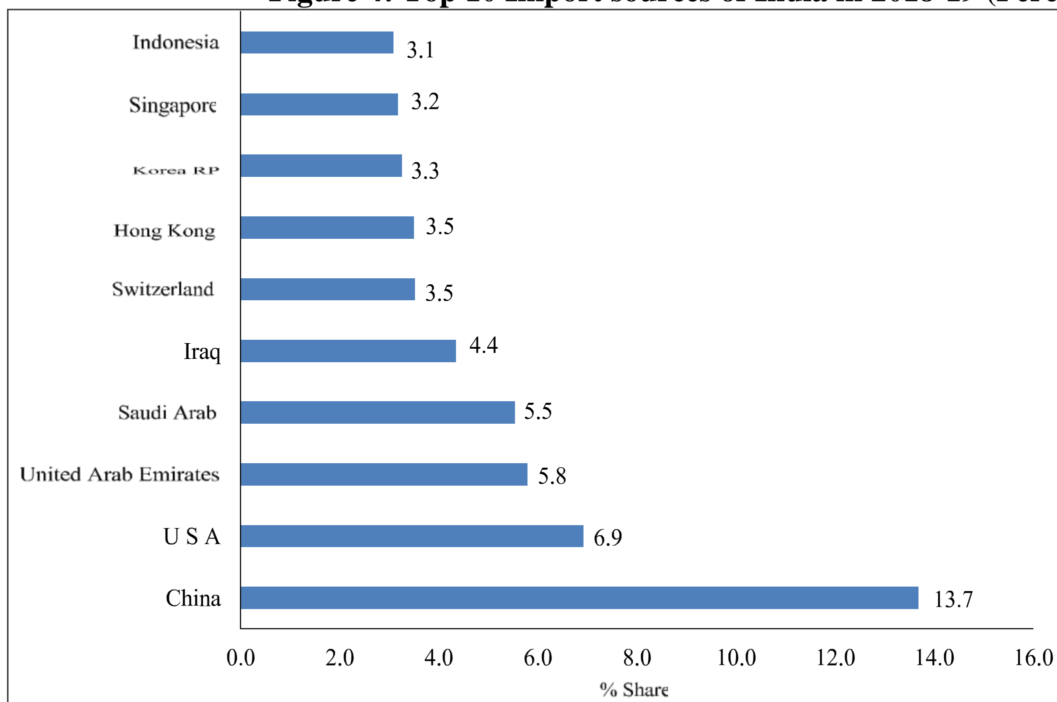
Figure 3: Top 10 Export destinations of India in 2018-19 (Percent)



Source: DGCI&S, Kolkata

China continues to be the largest source of imports of India accounting for 13.7% of the total import of 2018-19. The other import sources are the USA, UAE and Saudi Arabia (Figure 4).

Figure 4: Top 10 Import sources of India in 2018-19 (Percent)



Source: DGCI&S, Kolkata

3.1.3 <u>Challenges facing Indian Exports</u>

Throughout the year 2018-19, protectionist policy pronouncements and actions in the form of labeling, bilateral tariff escalations, sanctions and retaliations dominated the global political arena. They dealt a body blow to world trade, roiled financial markets and posed risks to macroeconomic prospects of several economies, advanced and emerging alike, that have sought to employ the engine of trade to integrate into the global economy. For countries like India which traditionally run current account deficit, viable external financing can become an additional consideration for holding adequate precautionary buffers. It is prudent to bear in mind the experience of 2018-19 when a crude oil price induced expansion in the current account deficit through the

first three quarters of the year was coincident with risk-averse portfolio outflows, warranting the use of reserves for meeting financing requirements.

India's external sector outlook is vulnerable to downside risks from global developments, especially the possibility of the global downturn deepening, the uncertainty surrounding international crude oil prices and the volatility of capital flows. During the first four months of 2019-20, India's exports as well as imports have dipped into contraction. Net FDI inflows were robust at US$ 14.5 billion in Q1:2019-20 as compared with US$ 9.6 billion a year ago. Foreign portfolio investment recorded net inflow of US$ 2.4 billion in 2019-20 so far (up to August 16) as against net outflow of US$ 8.2 billion in the corresponding period of 2018-19. India's foreign exchange reserves at US$ 430.5 billion as on August 16, 2019 increased by US$ 17.6 billion since end-March 2019.

In the 27 years since 1992 when India began liberalizing its trade regime, India's share of world goods exports rose from 0.5% in 1992 to 1.7 % in 2017. The corresponding export share of the much celebrated Indian service sector rose from 0.5% to 3.4% during the same period. Over the same period the Chinese share of world merchandise exports rose from 1.8% to 12.8%.

Government has taken various key measures for promotion of exports (PIB (2019, June 26)). Key difficulties faced by the exporters are as follows:-

a) Technical and non-tariff barriers to trade such as Sanitary and Phyto-Sanitary (SPS) standards imposed on agricultural items and quality standards on manufactured goods.

b) Tariff advantages to the exporters of competing countries in key export markets due to trade agreements between their countries and destination countries/regions.

c) Higher logistics and financing costs for Indian exporters.

A new Foreign Trade Policy (FTP) 2015-20 was launched on 1st April 2015. The policy, inter alia, rationalised the earlier export promotion schemes and introduced two new schemes, namely Merchandise Exports from India Scheme (MEIS) for improving export of goods and 'Services Exports from India Scheme (SEIS)' for increasing exports of services. The Mid-term Review of the FTP 2015-20 was undertaken during December, 2017. Incentive rates for labour intensive / MSME sectors were increased by 2% with a financial implication of Rs 8,450 crore per year. India's rank in World Bank's Logistics Performance Index moved up from 54 in 2014 to 44 in 2018. Various measures for improving ease of doing business were taken. India's rank in World Bank 'Ease of doing business' ranking improved from 142 in 2014 to 77 in 2018 with the rank in 'trading across borders' moving up from 122 to 80. A new scheme called Trade Infrastructure for Export Scheme (TIES) was launched with effect from 1st April 2017 to address the export infrastructure gaps in the country.

However, the revival of India's exports looks bleak given the lack of demand in the world market with both US and EU looking inwards and the fact that India is not a part of any major grouping of RTAs. The way forward for India on the export front would be to explore new markets in Africa and Central Asia and make its domestic economy competitive to join RCEP.

The mega Free Trade Agreements (mega-FTAs) like the TPP, RCEP, TTIP, CETA, in fact, came into being to fill the void left by the WTO in reforming the international trading system. RCEP has the potential to deliver significant opportunities for businesses in the East Asia region, given the fact that the 16 RCEP participating countries account for almost half of the world's population; contribute about 30 per cent of global GDP and over a quarter of world exports. The RCEP negotiations were launched by ASEAN leaders and six other countries during the 21st ASEAN Summit in Phnom Penh in November 2012. The objective of launching RCEP negotiations was to achieve a modern, comprehensive, high-quality, and mutually beneficial economic partnership agreement among the ASEAN member-states and their FTA partners. India has FTAs with many RCEP members. These include goods and services FTAs with ASEAN and comprehensive economic partnerships agreements (CEPA's) with Singapore, Malaysia, Japan and Korea. If the entry of India in G-20 marked the delinking of Pakistan in the economic sphere, the RCEP agreement will be India's doorway to the global neo-liberal troposphere, where it will share the same trading norms and space as China, Japan, Singapore, Australia and Malaysia, although there are laggards like Myanmar and Laos as well.

According to an internal estimate from the Indian Ministry of Commerce, the signing of the 16 country RCEP trade agreement will result in a revenue loss of as much as 1.6% of GDP. This has forced the negotiators to tread carefully. Notable is the fact that India runs a trade deficit with ten of the sixteen RCEP member-countries at a whopping $104 billion- 64 per cent of India's total trade deficit in 2017-18, and this deficit has reportedly been growing in the past few years. This makes it all the more difficult for India to accommodate the demands of RCEP member-countries to open up its market to 92 percent of traded goods. India, in particular, has been

unwilling to yield ground on tariffs and greater market access sought by the other RCEP countries till it is assured of easier movement for its service professionals. India's contention is significant considering that service exports- driven by the IT sector at 45%, travel and transportation at 24%- are not only a greater component of the Indian economy as compared to the manufacturing sector, but is critical for propelling the manufacturing sector too. India's share in global service exports stands at 3.4 per cent in 2016, which is double that of its share in global merchandise exports at 1.65 per cent. Most member-countries, however, remain circumspect in this area (Natraj,G. & Sahdev, G., 2019).

India's decision to not to join the mega deal was announced by Prime Minister Narendra Modi during his speech at the RCEP Summit in Bangkok in November 2019. He said "Overall, we are clear that a mutually beneficial RCEP, in which all sides gain reasonably, is in interests of India and of all partners in the negotiation" ("Mutually beneficial," 2019). India took the call not to the join RCEP despite spending considerable amount of time on the negotiating table as the offer was not as much as our aspirations in particular sectors Finance Minister told in a press conference.

The report of Shri Surjit Bhalla led High level advisory group (HLAG) set up by the Ministry of Commerce on 09 September 2019 presented a roadmap to double India's exports to $1 Trillion by year 2025 from about $ 500 Billion at present. In principle, by promoting exports, FTAs can help the country move up the value chain. That in turn can provide India an edge vis a vis non member countries. However, the fact remains that we have not gained from existing FTAs. The main culprits are the non-tariff barriers and administrative hurdles faced by Indian exporters such as difficulty in quality and specification certificates, and time-consuming custom clearances, just

to name a couple. They have prevented Indian exporters from exploiting markets of trading partners. Unsurprisingly, the partner countries have gained more (Singh, R., 2019).

3.1.4 Balance of Payments

BoP comprises current account, capital account, errors and omissions, and changes in foreign exchange reserves. Under current account of the BoP, transactions are classified into merchandise (Exports and Imports) and invisibles. Post the 2008 global financial crisis, emerging market and developing economies had to face periodic shocks or stresses emanating from policies in advanced economies as well as through financial channels. The widening of Current Account deficit (CAD) is largely on account of a higher trade deficit driven by rise in international crude oil prices as evident in Table 2. India's trade deficit increased almost steadily from US$ 147.6 billion to US$ 160.036 Billion in 2017-18.

Table 2: Balance of Payments (US$ Million)

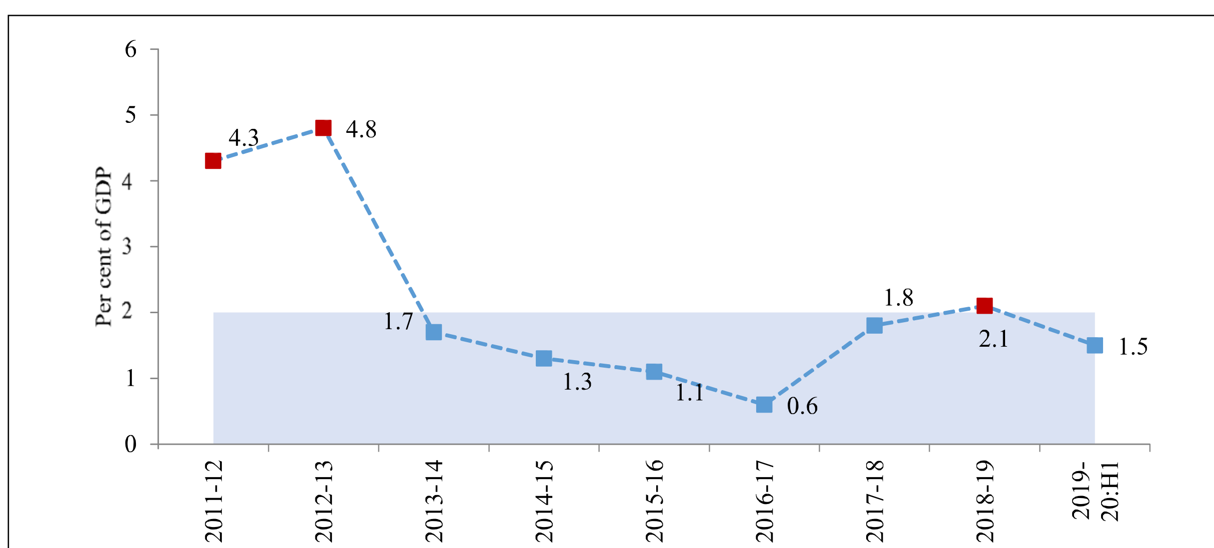
Sl. No.	Item	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
I	Current account						
1	Export	3,18,607	3,16,545	2,66,365	2,80,138	3,08,970	3,37,237
2	Import	4,66,216	4,61,484	3,96,444	3,92,580	4,69,006	5,17,519
3	**Trade Balance**	**-1,47,609**	**-1,44,940**	**-1,30,079**	**-1,12,442**	**-1,60,036**	**-1,80,283**
4	Invisibles(net)	1,15,313	1,18,081	1,07,928	98,026	1,11,319	1,23,026
	A. Services	73,066	76,529	69,676	68,345	77,562	81,941
	B. Income	-23,028	-24,140	-24,375	-26,302	-28,681	-28,861
	C. Transfers	65,276	65,692	62,627	55,983	62,438	69,946
5	Goods and Services balance	-74,544	-68,411	-60,402	-44,098	-82,474	-98,342
6	**Current account balance(3+4)**	**-32,296**	**-26,859**	**-22,151**	**-14,417**	**-48,717**	**-57,256**
7	**Capital Account Balance**	**48,787**	**89,286**	**41,128**	**36,447**	**91,390**	**54,403**
8	**Overall balance**	**15,508**	**61,406**	**17,905**	**21,550**	**43,574**	**-3,339**

Source: Reserve Bank of India

3.1.5 <u>BoP during 2018-19</u>

The CAD increased to 2.1 per cent of GDP in 2018-19 from 1.8 per cent in 2017-18 on the back of widening of the trade deficit. India's trade deficit increased to US$ 180.3 billion in 2018-19 from US$ 160.0 billion in 2017-18. CAD to GDP ratio was found to be lower in the first half of 2019-20 as compared to 2018-19 (Figure 5).

Figure 5: Current Account deficit as percentage of GDP



Source: Reserve Bank of India

Net invisible receipts were higher in 2018-19 mainly due to increase in net services earnings and private transfer receipts. Net FDI inflows at US$ 30.7 billion in 2018-19 were marginally higher than US$ 30.3 billion in 2017-18. Portfolio investment recorded a net outflow of US$ 2.4 billion in 2018-19 as against an inflow of US$ 22.1 billion a year ago. In 2018-19, there was a depletion of US$ 3.3 billion of the foreign exchange reserves (on a BoP basis).

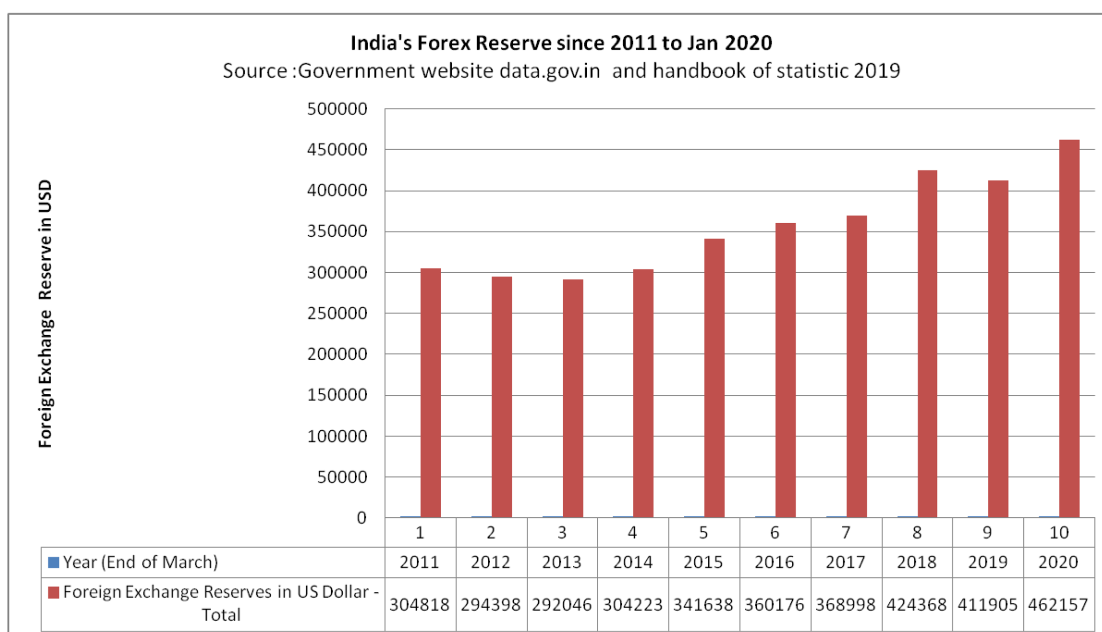
With the gradual external liberalisation of Indian Economy, not only the size of BoP has increased manifold, but the pattern of current and capital account has changed. Even though the reform process has strengthened resilience of India's external sector,

at the same time vulnerabilities arise with greater exposure of the economy to the rest of the world through liberalized trade and investment environment. Over the years, current account derived some resilience from surplus generated by invisibles, particularly software exports and private transfers, but trade deficit continues to dictate the overall trend in the current account. Going forward, since India's linkage with the world economy, in terms of trade and finance, is likely to go further, it is important that resilience in its trade account is built up mainly by promoting productivity based export competitiveness and improving domestic fundamentals that are supportive of least costly and non-debt creating flows, particularly FDI.

3.1.6 Foreign Exchange Reserves & External debt

India continues to be one of the countries that have sizeable foreign exchange reserves. Among the major economies running CAD, India is largest foreign Exchange reserve holder ranking 8th among all countries.

Figure 6: India's Foreign Exchange Reserve from 2011 to 2020 (in MUSD)



	1	2	3	4	5	6	7	8	9	10
Year (End of March)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Foreign Exchange Reserves in US Dollar - Total	304818	294398	292046	304223	341638	360176	368998	424368	411905	462157

Source: Government website data.gov.in and handbook of statistics 2019

Beginning from a low level of US$ 5.8 billion at March 1991, India's foreign exchange gradually increased to US$ 462.157 billion as in January 2020 (Figure 6). A sufficiently high level of reserves is necessary to ensure that even if there is prolonged uncertainty, reserves can cover the liquidity at risk on all accounts over a fairly long period.

Indian Rupee traded in the range of 65-68 per US$ in 2017-18 but depreciated to a range of 70-74 in 2018-19 on account of rising crude oil prices coupled with the tightening of financial conditions caused by increase in federal Funds rate by the US federal reserve. The rupee witnessed a spike in volatility in 2018-19 as compared to previous four years.

At end-March 2019, India's external debt was placed at US$ 543.0 billion, recording an increase of US$ 13.7 billion over its level at end-March 2018. At end-March 2019, India's external debt witnessed an increase of 2.6 per cent over its level at end-March 2018, primarily on account of an increase in short-term debt, commercial borrowings and non-resident Indian (NRI) deposits. The increase in external debt was partially offset by valuation gain resulting from the appreciation of the US dollar against Indian rupee and other major currencies. Commercial borrowings remained the largest component of external debt, with a share of 38.0 per cent, followed by NRI deposits (24.0 per cent) and short-term trade credit (18.9 per cent) (RBI Press Release, June 28, 2019).

3.1.7 Trade policy reforms/ degree of openness trade/ RTAs

India's trade policy faces multidimensional challenges in today's world of uncertainty, protectionism, falling global aggregate demand, elimination of export programmes and, perhaps the more important reason, domestic preoccupations.

Recognising the potential implications of these challenges, the Department of Commerce is working on the new Foreign Trade Policy and the task for framing the new trade policy is likely to be much more challenging, given the current developments in the international trading system. Broadly, India's trade policy challenges can be categorised as domestic and external challenges.

At the domestic level, the greatest challenge to the development of a robust trade policy in India is the poorly developed manufacturing sector. It is a well-recognised fact that India has not been able to develop a strong manufacturing sector despite two decades of economic and trade liberalisation. A large number of structural issues relating to labour reforms, limited availability of power, factory and goods market reforms, low productivity, and lack of technology are responsible for a weak manufacturing sector.

Challenges for India's trade policy are increasing manifold at the multilateral level due to increased trade protectionism, dispute settlement body and the Regional Comprehensive Economic Partnership (RCEP) negotiations. The immediate crisis at the WTO is to address the issue of appointment of judges at the Appellate Body, held up by the US. Further, developed countries have started negotiations in new areas such as e-commerce, investment facilitation, MSME, gender and trade. They are seeking greater disciplines in new emerging areas at the WTO. The US has terminated its Generalised System of Preference which provides duty-free market access to a large number of MSME products. It is adversely affecting India's exports worth $5.6 billion to the US market. The next biggest challenge is the RCEP (Gupta & Singh, October 23, 2019).

Given these challenges, it is extremely important for Indian policymakers to focus on making trade policy much more coherent at both domestic and external fronts. A very good starting point would be to undertake bold reforms in three important areas. First, it is important to promote “inner consistency and harmony” between objectives of policy and its implementation strategies. This requires a well-thought engagement in international trading arrangements. India’s stance at the WTO and with FTAs must be shaped by domestic priorities that are critical for growth, employment and poverty reduction. This requires an active participation in areas of international and regional trade negotiations where India has strong economic interest, as well as in those areas where rules will have an effect on the domestic regulatory space.

Second, our trade policy is largely conducted at an aggregate level and fails to capture critical factors that shape dynamic comparative cost advantage of firms. Therefore, it is important that trade policy analysis should focus on firms rather than sectors. This requires dedicated efforts on collecting firm-level data to understand policy and operational issues of exporting firms so that our trade policy helps firms connect with value-chain networks. A dynamic thinking is a prerequisite to analyse the implication of backward and forward linkages to our global export competitiveness.

Finally, there is also urgent need to reform our trade and related institutions to enhance their participation in policymaking and negotiations. For this, trade regulatory bodies, promotion councils and standards-related institutions should work together to create a dynamic database of imports and exports, so that information can be gathered at the product and market level to allow for a well-informed decision for trade negotiations. This will certainly help trade-policy makers leverage the benefits of global trade for firm-level productivity, competitiveness and job creation.

3.2.1 Significance of Import of Oil and Gas in Indian Economy

The precarious nature of India's energy security, with increasing dependence on imported energy sources, has serious implications for the country. The limitations of domestic energy supplies are being exacerbated by the rapid and dynamic changes in the global hydrocarbon landscape. The Middle East hydrocarbon producers already feel threatened by the energy self sufficiency scenario of the US and if the 'Arab Spring' becomes a chronic event, it may prolong and threaten the sources and routes for oil and gas imports for India. This continued regional instability and an emerging global energy landscape driven by technology, increases the challenges India faces in achieving energy security. And the pressures are likely to intensify. This means that without radical transformations that see India breaking away from traditional policies and practices, the lack of secure, sustainable energy supplies will have a widespread impact on the country, negatively affecting everything from economic growth and employment to agriculture and food security, and efforts to combat poverty ((Kelkar Committee (2015)).

Kelkar Committee for reduction of oil dependency in hydrocarbon sector was set up in 2013 under Dr. Vijay Kelkar. The aim of the committee was to reduce the import bill of our country substantially by $70-80 billion. India is highly dependent on imported sources of energy. This can lead to critical circumstances in future as the geopolitical scenarios shaping in middle-east which can threaten oil and gas routes for India. Also, US self-sufficiency fuelled by discovery of Shale Gas has already worried the OPEC partners in middle-east. These pressures which are building up due to change in global energy and power centres, technological advances and also Arab Spring are likely to intensify in coming days. India needs to break away from traditional policies to enter into a secure energy regime and avoid any negative pitfalls

of economic growth. The committee reiterated the need for a National Energy Policy and enhanced coordination between all the six ministries involved in formulating energy policies.

Share of POL imports in total imports is 27.4% of total imports in 2018-19 (Table 3). Crude oil imports have a large presence in the import basket that correlates India's total imports with crude prices. As crude price rises so does the share of crude in total imports that increases imports to GDP ratio.

Table 3: Share of POL Import in Total Imports and Crude Oil Price (Indian Basket)

Item	2009-14	2014-19	2018-19	2019-20-H1
Share of POL imports in total imports (per cent)	32.1	25.2	27.4	26.3
Crude oil price of Indian Basket (US$/bbl.)	96.0	60.8	69.9	64.7
Merchandise Imports as percent of GDP	24.3	18.7	18.9	17.6

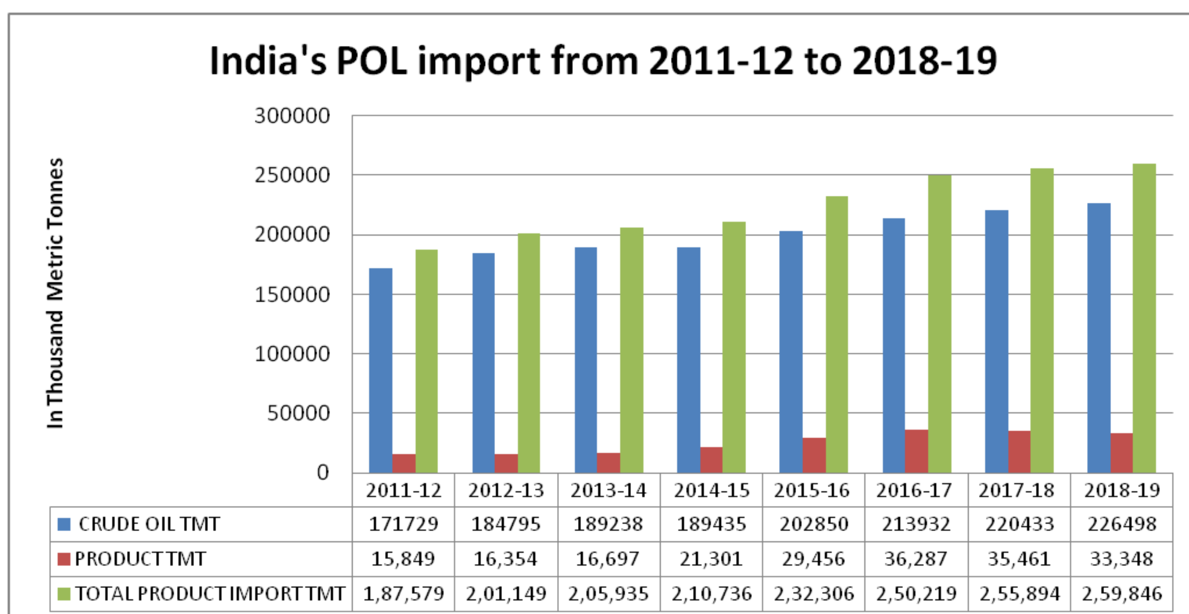
Source: Department of Commerce and Ministry of Petroleum and Natural Gas.

India imports roughly 35% of its primary energy needs. While India imports close to 14% of its coal demand, the figure for oil and gas stand at a staggering 70% and 30% respectively. India imports almost USD 150 billion worth of energy. While this is already a serious issue, business as usual forecasts present an even bleaker picture. The US Energy Information Administration (EIA) estimates supply growth of all energy sources in India to be significantly below the rate of demand growth, widening the supply-demand gap to almost 50% of total primary energy demand by 2030. The cost (in current terms) of importing this energy is predicted to reach almost USD300 billion in 2030. If significant measures are not implemented urgently, it is estimated that India will need to import a cumulative amount of energy equivalent to USD3.6 trillion between now and 2030, more than twice the current gross domestic product (GDP) ((Kelkar Committee (2015)).

India has struggled to raise its oil and gas output for years. Policy reforms and initiatives by explorers in recent years have had little impact on output, leaving the country dependent on foreign suppliers and vulnerable to the geopolitics of the international oil market. Dependence on oil imports hurts local currency and affects the trade balance. India will likely spend Rs 8,00,000 crore on oil imports in 2019-20, as per an oil ministry's estimate that assumes an oil price of $66/bar and average exchange rate for Rs 71 against the dollar. In early 2015, Prime Minister had set a target of cutting oil import dependence by 10% from 77% then. But imports have increased as output in ageing fields is falling and there are no major discoveries.

The demand and supply of crude oil/petroleum products in the country for consumption of petro-products and fulfilling the needs of oil refineries is an inter-play of several factors like success in new production of crude oil, successful acquisition of assets or equity oil abroad, success in conservation efforts, etc.

Figure 7: India's POL import from 2011-12 to 2018-19



	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
CRUDE OIL TMT	171729	184795	189238	189435	202850	213932	220433	226498
PRODUCT TMT	15,849	16,354	16,697	21,301	29,456	36,287	35,461	33,348
TOTAL PRODUCT IMPORT TMT	1,87,579	2,01,149	2,05,935	2,10,736	2,32,306	2,50,219	2,55,894	2,59,846

Source: Petroleum Planning & Analysis Cell, Ministry of Petroleum website

On an overall basis petroleum products availability from refineries and fractionators exceeds domestic consumption of the country. The refining capacity available in the country is 249.366 MMTPA as on July 2019 which far exceeds petroleum product requirement for domestic consumption. However, there were still imports of some petroleum products like Naphtha, Fuel oil etc. to meet specific requirements of the user-industries. Also, imports were resorted to, to meet domestic consumption and requirement of certain products like LPG, lubes, etc. India's POL import from 2011-12 onwards are shown in Figure 7.

The growth in the economy has triggered energy demand. On domestic front this increasing energy demand is due to robust private consumption and public investment as well as ongoing structural reforms. It may also be mentioned here that global tension on trade front and volatile global oil market has hardened the crude oil prices. Oil and Gas being the important import for our economy, several initiatives have been taken by the Ministry of Petroleum and Natural Gas for increasing production and exploitation of all domestic petroleum resources to address the priorities like Energy Access, Energy Efficiency, Energy Sustainability and Energy Security.

The Indian energy sector encompasses conventional sources such as coal, natural gas, oil as well as unconventional sources including solar, hydro and bio-waste. The south Asian country ranks third worldwide for primary energy consumption after China and the United States. The gigantic energy consumption could very likely have been the cause of increased demand that was reflected in the volume of crude oil imports across the country, which was approximated to be around 226.5 million metric tons during financial year 2018-19.

The oil and gas sector in the country is one of the eight core industries present and is a major influence on the other sectors that contribute to the economy as well. Increased demand needs to be met with sufficient supply. The refinery capacity of crude oil has been increasing over the years. The tug of war with the crude oil prices in the country also seems to be edging in favor of higher prices. The annual growth rate in the average price of crude oil was over twelve percent in financial year 2018 compared with the previous year.

The depleting fossil fuel reserves have not helped the population in terms of prices of oil products. The production volume of onshore crude oil has declined gradually over the years. However, the climate agreements of Copenhagen and Paris might result in increased investments and clean energy installations, providing a possible solution for India's deficiency in fuel sources.

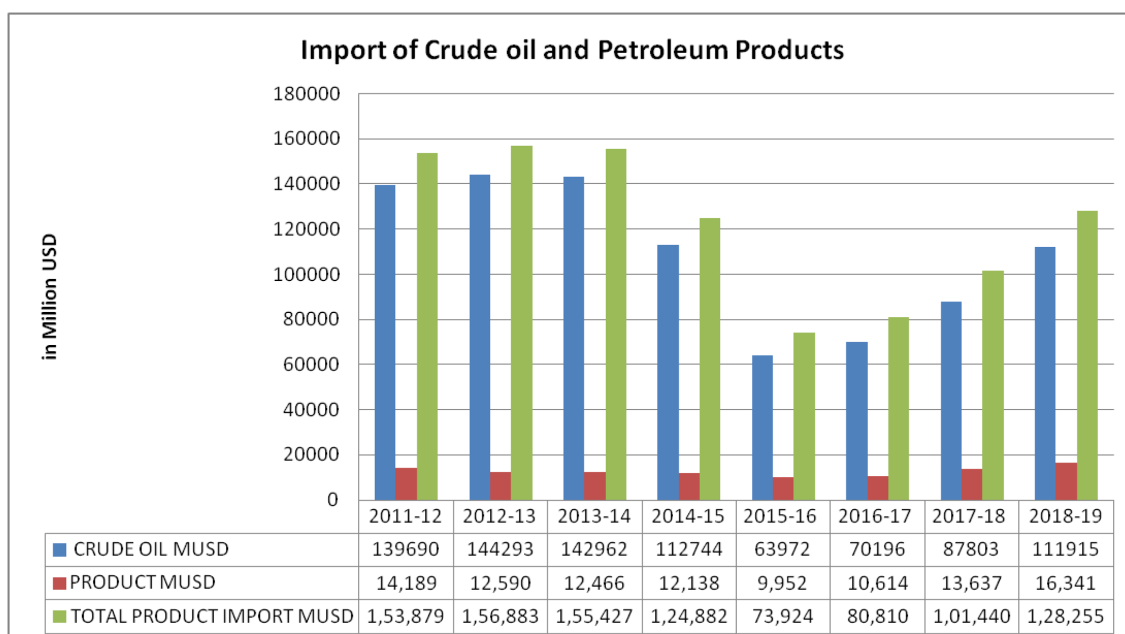
3.2.2 Oil price hike affects inflation

India's heavy dependence on oil imports often results in boom-bust cycles on the balance of payments (BoP) when crude prices change. For example, the CAD narrowed to 0.7% of GDP in 2016-17 as crude prices fell and was then tracking close to 3% of GDP in 2018 when crude prices bounced back. This resulted in large BoP surplus in the first instance and a large deficit in the second. These sharp swings complicate monetary policy as well as exchange rate and liquidity management, and create undue external and fiscal volatility (Banerjee, A., Gopinath, G., Rajan, R. & Sharma, M. (2019)).

Domestic production of crude oil and natural gas has fallen by 6% and 1.5%, respectively, in the first half of the current fiscal year, further increasing dependence on imports to meet rising demand. India's oil demand growth too has slowed to 1.4%

in the April - September period, compared to 3.5% in the same period last year, but a sharper decline in production has increased reliance on import. Foreign oil made up 84.5% of the country's needs in six months to September, up from 83.3% a year. The government has been aiming to cut oil import dependence to 67% by 2022 but local output has been falling year after year mainly due to ageing fields and lack of major discovery. The government has introduced several policy initiatives in recent years aimed at attracting more capital and technology to the upstream sector, which in turn is expected to help raise local output. Companies too have been investing billions of dollars but country's overall output has continued to slip. Import of crude oil and petroleum products in million USD is shown in Figure 8.

Figure 8: Import of Crude Oil and Petroleum Products



	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
CRUDE OIL MUSD	139690	144293	142962	112744	63972	70196	87803	111915
PRODUCT MUSD	14,189	12,590	12,466	12,138	9,952	10,614	13,637	16,341
TOTAL PRODUCT IMPORT MUSD	1,53,879	1,56,883	1,55,427	1,24,882	73,924	80,810	1,01,440	1,28,255

Source: Petroleum Planning & analysis Cell website, Ministry of Petroleum, Government of India

3.2.3. <u>Macroeconomic balance</u>

Oil imports in June 2019 were USD11.03billion (Rs. 76,586.73crore), which was 13.33 percent lower in Dollar terms (11.23percent lower in Rupee terms), compared

to USD12.73billion (Rs. 86,270.79crore) in June2018. Oil imports in April-June 2019-20 were USD34.85billion (Rs. 2,42,398.55crore) which was 0.62per cent higher in Dollar terms (4.36percent higher in Rupee terms) compared to USD34.64billion (Rs. 2,32,269.14crore), over the same period last year. In this connection it is mentioned that the global Brent price ($/bbl) has decreased by 15.81% in June 2019 vis-à-vis June 2018 as per data available from World Bank (Pink Sheet).

Ministry of Petroleum and Natural Gas have signed contracts for 7 blocks in January 2020, awarded under Open Acreage Licensing Programme (OALP) Bid Round – IV. In the last two and a half years, Government has successfully bid out nearly 1.4 lakh sq. km for exploration and production. The Seven blocks awarded under OALP IV to ONGC have resource potential of approx. 33 billion bbls of oil and oil equivalent gas (PIB(2020, January 02)).

The prices of crude oil and petroleum products have shown a declining trend after July, 2014. As a result, the average price of Indian crude oil basket during FY 2015-16, FY 2016-17 and FY 2017-18 was recorded at $46.17/bbl, $47.56/bbl and $56.43/bbl respectively. The price has increased to $72.16/ bbl during the FY 2018-19 (up to 27th December, 2018). Since the price of crude oil and petroleum products in the international markets are quoted in US Dollars, the Indian `–US$ exchange rate plays a vital role in the Indian context. The rupee dollar exchange rate was moving in a narrow band till FY 2011-12, but subsequently there was a depreciation of the Indian rupee thus making the prices of crude oil and petroleum products expensive in domestic currency.

3.3 Way forward: External Sector

The current environment for international trade presents India an unprecedented opportunity to chart a China-like, labour-intensive, export trajectory and thereby create unparalleled job opportunities for our burgeoning youth.

The steadily rising energy import dependence is a cause for concern. With a target of sustained above 8% annual growth rate in GDP, India's energy imports may rise rapidly and impair our energy security.

Key to better export performance lies in improving both the hard infrastructure (Port, Shipping, Railways, Roads and Airports) and Soft Infrastructure (Telecommunication, Business Environment and logistics).

The Economic Survey 2019-20 advised that by integrating "Assemble in India for the world" into Make in India, India can raise its export market share to about 3.5 per cent by 2025 and 6 per cent by 2030, which is highly feasible. In the process, India would create about 4 crore well-paid jobs by 2025 and about 8 crore by 2030, says the Economic Survey. The Pre-Budget Survey says that the incremental value added in the economy from the target level of exports of network products, which is expected to equal $248 billion in 2025, would make up about one-quarter of the increase required for making India a $5 trillion economy by 2025. Exports of network products, which is expected to equal $7 trillion worldwide in 2025, can contribute a quarter of the increase in value-added for the $5 trillion economy by 2025. Economic Survey 2019-20 articulated strategy to grab this opportunity. China's remarkable export performance vis-a-vis India is driven primarily by deliberate specialization at large scale in labour - intensive activities, especially "network products", where

production occurs across Global Value Chains (GVCs) operated by multi-national corporations (Economic Survey 2019-20, Ministry of Finance, 2020).

India must focus on a group of industries, referred to as "network products", where production processes are globally fragmented and controlled by leading Multi-National Enterprises (MNEs) within their "producer driven" global production networks. Examples of network products include computers, electronic and electrical equipment, telecommunication equipment, road vehicles etc. China's remarkable export performance vis-a-vis India is driven primarily by deliberate specialization at large scale in labour-intensive activities, especially "network products", where production occurs across GVCs operated by multi-national corporations. By importing components and assembling them in China for the world, China created jobs at an unprecedented scale. Similarly, by integrating "Assemble in India for the world" into Make in India, India can raise its export market share to about 3.5 per cent by 2025 and 6 per cent by 2030, which is highly feasible. In the process, India would create about 4 crore well-paid jobs by 2025 and about 8 crore by 2030. The incremental value added in the economy from the target level of exports of network products, which is expected to equal $248 billion in 2025, would make up about one-quarter of the increase required for making India a $5 trillion economy by 2025.

Chapter-4

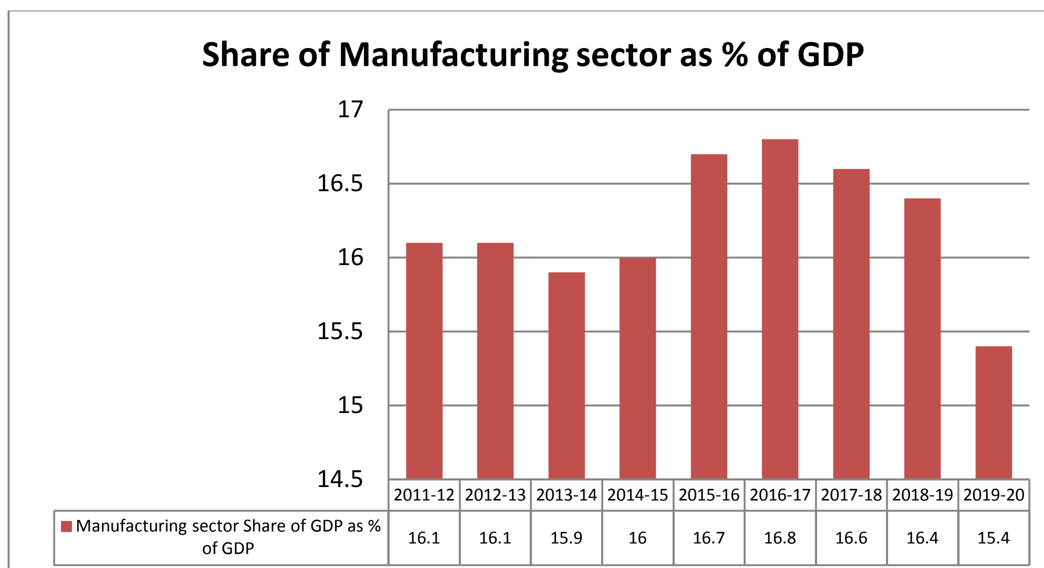
Industrial Reforms and Measures to boost the sector

Industry plays a decisive role in determining the overall growth of an economy. Indian manufacturers had a worldwide market prior to the industrial revolution and rise of modern industry. Before the industrial revolution India accounted for a quarter of world's industrial output. The exports consisted chiefly of manufacturers like cotton and silk fabrics, calicoes, artistic ware, silk and woolen cloth. The impact of the British rule and the industrial revolution led to the decay of Indian handicrafts. Machine-made goods started pouring into the country. The decline of handicrafts was not followed by the rise of modern industry in India because of the British policy of encouraging the import of manufactures and export of raw materials from India.

Industrial development in Independent India was catalyzed by three major industrial policy resolutions of Government of India in 1948, 1956 and 1991, which provided a strong industrial base. Economic reforms unveiled in 1991, have brought about a structural shift enabling the private sector to assume a much larger role in all sectors of economy. However, the growth of GDP in India has largely been enabled by a dynamic growth in the services sector. Though in the recent past, the growth of the manufacturing sector has generally outpaced the overall growth rate of the economy, at just over 16 percent of GDP, the contribution of the manufacturing sector in India is much below its potential as evident in Figure 9. This situation is a cause of concern especially when seen in the context of transformation registered in this sector by other Asian countries in similar stages of development. The increasing gap in the sectoral share and the productivity of the manufacturing sector, between India and these

economies, indicates that we have not been able to fully leverage the opportunities provided by the dynamics of globalization.

Figure 9: Share of Manufacturing as % of GDP: 2011-12 to 2019-20



Source: NITI Aayog

India is the fifth largest manufacturer in the world with a gross value added (GVA) of INR 21,531.47 billion in 2017-18. The sector registered a compound annual growth rate (CAGR) of around 7.7 per cent between 2012-13 and 2017-18 (NITI Aayog, 2018).

4.1 New Manufacturing policy

The Government of India has made national manufacturing policy during November 2011 with the objective of enhancing the share of manufacturing in GDP to 25% within a decade and creating 100 million jobs (DIPP, November 2011). It also seeks to empower rural youth by imparting necessary skill sets to make them employable. Sustainable development is integral to the spirit of the policy and technological value addition in manufacturing has received special focus. The share of manufacturing in India's GDP has stagnated at 15-16% since 1980 (Figure 9) while the share in

comparable economies in Asia is much higher at 25 to 34%. Inadequate physical infrastructure, complex regulatory environment and inadequate availability of skilled manpower have constrained the growth of manufacturing in India. Recognizing that the manufacturing sector has a multiplier effect on the creation of jobs, even in allied sectors, the government has brought out this policy. The policy is based on the principle of industrial growth in partnership with the States. The Central Government will create the enabling policy frame work, provide incentives for infrastructure development on a Public Private Partnership (PPP) basis through appropriate financing instruments, and State Governments will be encouraged to adopt the instrumentalities provided in the policy. The proposals in the policy are generally sector neutral, location neutral and technology neutral except incentivization of green technology. While the National Investment and Manufacturing Zones (NIMZs) are an important instrumentality, the proposals contained in the Policy apply to manufacturing industry throughout the country including wherever industry is able to organize itself into clusters and adopt a model of self-regulation.

As per GoI/DIPP press Note 2 of 2011, Government of India decided to bring out the National Manufacturing Policy to bring about a quantitative and qualitative change with the following six objectives: Increase manufacturing sector growth to 12-14% over the medium term to make it the engine of growth for the economy. The 2 to 4 % differential over the medium term growth rate of the overall economy will enable manufacturing to contribute at least 25% of the National GDP by 2022.

a) Increase the rate of job creation in manufacturing to create 100 million additional jobs by 2022.
b) Creation of appropriate skill sets among the rural migrant and urban poor to make growth inclusive.

c) Increase domestic value addition and technological ‘depth’ in manufacturing.

d) Enhance global competitiveness of Indian manufacturing through appropriate policy support.

e) Ensure sustainability of growth, particularly with regard to the environment including energy efficiency, optimal utilization of natural resources and restoration of damaged/ degraded eco-systems.

In order to achieve these goals:-

a) Foreign investments and technologies will be welcomed while leveraging the country's expanding market for manufactured goods to induce the building of more manufacturing capabilities and technologies within the country;

b) Competitiveness of enterprises in the country will be the guiding principle in the design and implementation of policies and programmes;

c) Compliance burden on industry arising out of procedural and regulatory formalities will be reduced through rationalization of business regulations.

d) Innovation will be encouraged for augmenting productivity, quality, and growth of enterprises; and

e) Effective consultative mechanism with all stake holders will be instituted to ensure mid-course corrections

4.2 <u>Make in India</u>

To give a kick start to Indian Manufacturing, apart from the new manufacturing policy, the government also introduced its flagship programme Make in India to boost Indian manufacturing and enable foreign investors to come and set up base in India. The ‘Make in India’ initiative was launched in 2014 with the objective of promoting India as an important investment destination and a global hub in manufacturing,

design and innovation. The ‘Make in India’ initiative does not target manufacturing sector alone, but also aims at promoting entrepreneurship in the country. The initiative is further aimed at creating a conducive environment for investment, modern and efficient infrastructure, opening up new sectors for foreign investment and forging a partnership between government and industry through positive mindset. The following 25 sectors have been identified under the ‘Make in India’ initiative (PIB (2015, July 24)):-

i. Auto Components
ii. Automobiles
iii. Aviation
iv. Biotechnology
v. Chemicals
vi. Construction
vii. Defence Manufacturing
viii. Electrical Machinery
ix. Electronic System Design and Manufacturing
x. Food Processing
xi. IT and BPM
xii. Leather
xiii. Media and Entertainment
xiv. Mining
xv. Oil and Gas
xvi. Pharmaceuticals
xvii. Ports
xviii. Railways

xix. Roads and Highways
xx. Renewable Energy
xxi. Space
xxii. Textiles
xxiii. Thermal Power
xxiv. Tourism and Hospitality
xxv. Wellness

Initially under Make in India initiative action plans for 25 sectors had been prepared and which after review is now focused on 27 sectors. Department of Industrial Policy & Promotion coordinates action plans for 15 manufacturing sectors while Department of Commerce coordinates 12 service sectors.

Electronics hardware manufacturing is one of the important pillars of both Make in India and Digital India. Major efforts are underway to establish India as a global electronics manufacturing hub. One such initiative is the National Policy on Electronics (NPE) 2019. It aims to position India as a global hub for Electronics System Design and Manufacturing – by developing and driving capabilities in the country for developing core components, including chipsets, and creating an enabling environment for the industry to compete globally. The goals of the NPE 2019 are to attract an investment of $100 Bn, to reach a turnover of $400 Bn, to create employment for 28 mn people and to increase exports from $8 Bn to $80 Bn by producing 1 bn mobile handsets by 2025.

The automotive sector has played a key role in the success of the government's Make in India initiative. Many global carmakers – such as Renault, Suzuki, Honda, Volkswagen - have set up their manufacturing base in the country. The Automotive

Mission Plan (AMP) 2026 aims to position the Automotive Industry as the engine of the Make in India programme with a target to grow 3.5 – 4 times the current value of $74 Bn to $260 Bn – $300 Bn and to contribute over 12% to India's GDP. India's renewable energy potential is vast and largely untapped. In 2015, India's solar energy potential was estimated to be greater than 750 Giga-Watt (GW) and wind energy potential was pegged at 302 GW. India has pledged that it will derive at least 40% of its energy needs from renewable sources by 2030. This includes plans to develop 100 GW of solar energy by 2022.

The government has set a target of USD 26 billion turnover in aerospace and military manufacturing in next five years, Defence Minister Rajnath Singh said on 08 March 2020. Singh said the manufacturing sector has the potential to reach USD 1 trillion by 2025 and that the government is striving to achieve the goal by implementing key flagship programmes like 'Make in India'. According to him, indigenous defence production is a key to achieving the country's aim to be a USD 5 trillion economy by 2024 ("$5 trillion economy," March 2020).

Some of the major achievements under Make in India initiative are:

a) Six industrial corridors are being developed across various regions of the country. Industrial cities will also come up along these corridors.
b) India has become a net exporter of electricity - 7203 MU exported to Nepal, Bangladesh and Myanmar during 2017-18.
c) One of the world's largest 648-MW solar power plant in Tamil Nadu was commissioned on September 21, 2016.

d) Two path breaking prototype locomotives of WAGC3 & WAG11 class of 10,000 and 12,000 hp respectively were developed indigenously by converting existing diesel locomotive to upgraded electric locomotive.

e) Asia's largest MedTech Zone (AMTZ) has been set up in Andhra Pradesh.

f) 88 cold chain projects were commissioned during June 2014 to August 2018, thereby, creating additional food processing capacity of 3.9 lakh tones.

g) Three textile mega clusters in Bareilly, Lucknow and Kutch are being set up, thereby benefitting 14505 artisans.

h) Major ports in India have added capacity of 92.19 MTPA during FY 2017-18. Total turnaround time at these ports has reduced by 33% from 96 hrs in FY 2014-15 to 64.32 hrs in FY 2017-18.

4.3 Challenges for make in India

As per the Mackinsey report, the Indian workers are less productive as compared to their counterparts like China and Thailand. Due to the lacunae of insufficient skills, Indian workers are four to five times less productive than their counterparts in Thailand and China. Another reason is that the size of the industrial units is too small for attaining economies of scale, investing in modern equipment and developing supply chains. Complicated labour regulation has made plants to equip themselves with only 100 employees. The infrastructure of the manufacturing industry is not good enough to compete with India's counterparts. Inconvenient transportation is another reason for the slow growth of the initiative (transportation takes much more time in India). Bureaucratic procedures and corruption continue to make India less attractive to investors.

India needs to focus on competitive advantages on the global scale in sector where we have a large domestic market. India also needs to shift its priority on industries like Defence, electronics hardware, construction, health care and agro-industries. India must focus on creating favourable policy environment for manufacturing and needs to foster skill development among the masses. A cooperative partnership must be built between government and the private sector, both domestic and foreign cases. As the western world is concerned about the technological parameter, India needs to leverage new technologies to resist the counterparts.

4.4 Start-up India

Start-ups drive economic growth, create employment and foster a culture of innovation. In order to promote innovation and entrepreneurship among enterprising youth, "Start-up India and Stand-up India initiative launched on 16th January 2016, consists of 19 Action Points that act as a guiding document for the initiative. Since its inception, 19,351 Startups across the country have been recognised by the Department for Promotion of Industry and Internal Trade (DPIIT) as on 24.06.2019. Government of India has established Fund of Funds for Startups (FFS) with corpus of Rs. 10,000 crore, to meet the funding needs of startups. DPIIT is the monitoring agency and Small Industries Development Bank of India (SIDBI) is the operating agency for FFS. The total corpus of Rs. 10,000 crore is envisaged to be provided over the 14th and 15th Finance Commission cycles based on progress of the scheme and availability of funds. SIDBI has committed Rs 3,123.20 crore to 49 SEBI registered Alternative Investment Funds (AIFs). These funds have raised a corpus fund of INR 27,478 crore. INR 483.46 crore have been drawn from Fund of Funds for Startups. Further, the AIFs have invested a total of Rs. 1,625.73 crore into 247 startups (PIB (2019, June 28))

4.5 Status of Economy in 2018-19

Growth in the industry accelerated during 2018-19 on the strength of improving manufacturing and construction activity, which have more than offset the declaration in the other two sub sectors, 'Mining & quarrying' and 'Electricity, gas, water supply & other utility services'. Manufacturing accounted for 16.4 per cent in total GVA in 2018-19, marginally higher than that of 'Agriculture & allied' sector.

Figure 10: Growth rate of GVA at basic prices in Percent

Source: Press release 04 July 2019, Government of India.

The growth in manufacturing sector picked up in 2018-19 (Figure 10), although the momentum slowed down towards the end of the financial year with a growth of 3.1 per cent in fourth quarter of the year, as compared to 12.1 per cent, 6.9 per cent and 6.4 per cent in first, second and third quarter respectively. The growth rate in Q4 of 2018-19 moderated considerably, on account of lower NBFC lending, which in part led to sales in the auto sector.

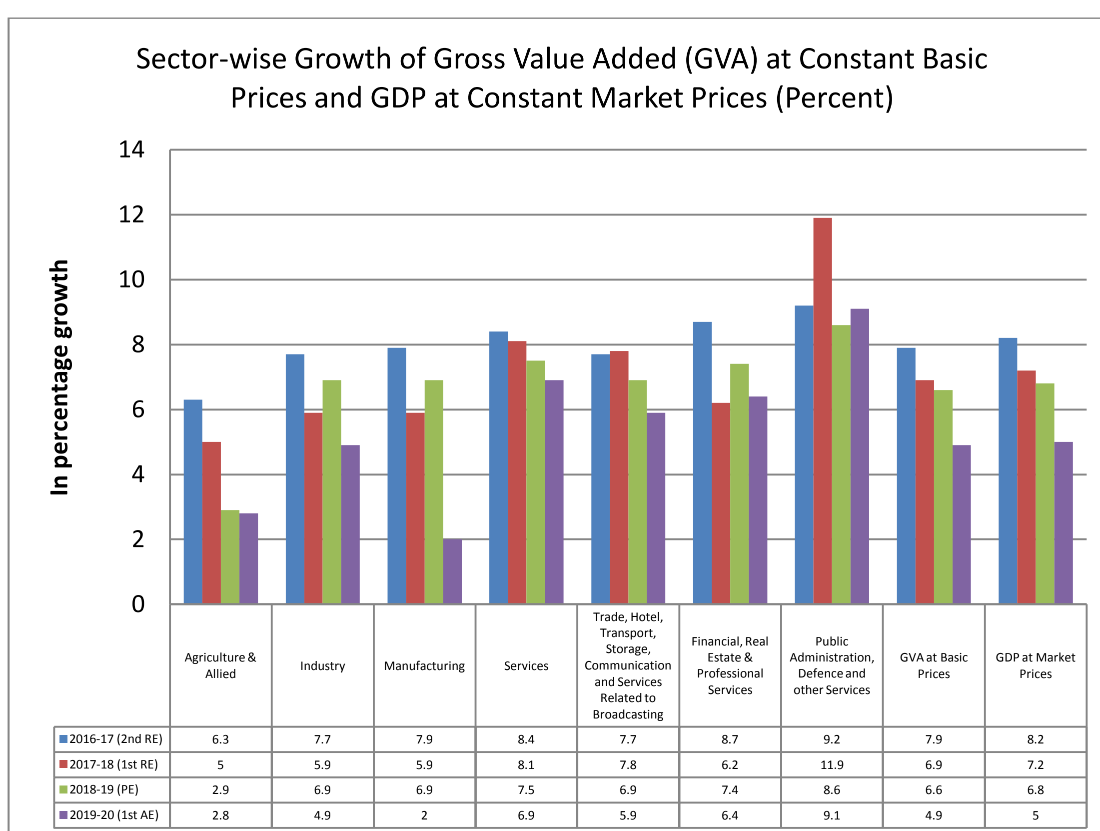
4.6 Status of economy in 2019-20

The National Statistical Office (NSO), Ministry of Statistics and Programme Implementation has released the First Advance Estimates of National Income at both

Constant (2011-12) and Current Prices, for the financial year 2019-20 along with the corresponding estimates of expenditure components of the Gross Domestic Product (GDP) on 07 January 2020 (PIB press release 07 January 2020).

Sector-wise Growth of Gross Value Added (GVA) at Constant Basic Prices and GDP at Constant Market Prices (Percent) from 2016-17 to 2018-19 are shown in Figure 11.

Figure 11: Sector-wise Growth of Gross Value Added (GVA) at Constant Basic Prices and GDP at Constant Market Prices (Percent) from 2016-17 to 2019-20



	Agriculture & Allied	Industry	Manufacturing	Services	Trade, Hotel, Transport, Storage, Communication and Services Related to Broadcasting	Financial, Real Estate & Professional Services	Public Administration, Defence and other Services	GVA at Basic Prices	GDP at Market Prices
2016-17 (2nd RE)	6.3	7.7	7.9	8.4	7.7	8.7	9.2	7.9	8.2
2017-18 (1st RE)	5	5.9	5.9	8.1	7.8	6.2	11.9	6.9	7.2
2018-19 (PE)	2.9	6.9	6.9	7.5	6.9	7.4	8.6	6.6	6.8
2019-20 (1st AE)	2.8	4.9	2	6.9	5.9	6.4	9.1	4.9	5

Source: Government website data.gov.in and 1st AE released by NSO in January 2020

Real GDP or GDP at Constant Prices (2011-12) in the year 2019-20 is likely to attain a level of ₹ 147.79 lakh crore, as against the Provisional Estimate of GDP for the year 2018-19 of ₹ 140.78 lakh crore, released on 31st May 2019. The growth in real GDP during 2019-20 is estimated at 5.0 per cent as compared to the growth rate of 6.8 per cent in 2018-19. Real GVA at Basic Prices is estimated to increase from ₹ 129.07

lakh crore in 2018-19 to ₹ 135.40 lakh crore in 2019-20. Estimated growth of real GVA in 2019-20 is 4.9 per cent as against 6.6 per cent in 2018-19.

The sectors which registered growth rate of over 4.9 percent are, 'Electricity, Gas, Water Supply and Other Utility Services', 'Trade, Hotels, Transport, Communication and Services related to Broadcasting', 'Financial, Real Estate and Professional Services' and 'Public Administration, Defence and Other Services' at 5.4 per cent, 5.9 per cent, 6.4 per cent, 9.1 per cent respectively. The growth in the 'Agriculture, Forestry and Fishing', 'Mining and Quarrying', 'Manufacturing' and 'Construction' is estimated to be 2.8 per cent, 1.5 per cent, 2.0 per cent and 3.2 per cent respectively.

Table 4: Sectoral Share in GVA (in %)

	2009-10 to 2013-14	**2014-15 to 2018-19**	**2018-19**	**H1: 2019-20**
Agriculture, forestry & fishing	**18.3**	**17.4**	**16.1**	**13.9**
Industry	**32.3**	**29.6**	**29.6**	**28.3**
Mining & Quarrying	3.2	2.4	2.4	2.1
Manufacturing	17.5	16.6	16.4	15.4
Electricity, Gas, Water supply & other utility services	2.4	2.6	2.8	2.9
Construction	9.2	8.0	8.0	8.0
Services	**49.4**	**52.9**	**54.3**	**57.8**
Trade, Hotel, Transport, Storage, Communication and services related to broadcasting	17.5	18.3	18.3	18.1
Financial, Real estate & Professional services	19.2	20.9	21.3	24.5
Public Administration, Defence and other services	12.7	13.7	14.7	15.2

Source: National Statistical Office & Economic Survey 2020

Sectoral Share in GVA is shown in Table 4. The contribution of industrial activities to GVA has been declined from 2009-14 to 2014-19. Manufacturing sector, which

contributes more than 50 per cent of industrial GVA, has driven the decline while the share of construction sector has also moderated.

4.7 <u>Economic slowdown</u>

The Indian economy, for the last five years (2014-19), has been planned as the fastest growing major economy and projected to grow potentially faster in the coming years than China. However, since 2016, the economy has gradually gone downhill, and the growth rate in GDP has now fallen below 6 percent for the first time in a decade.

Table 5: Quarter-wise Growth of GVA and GDP at Constant (2011-12) Prices (percent)

Sectors	2017-18				2018-19				2019-20	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Agriculture, forestry & fishing	**4.2**	**4.5**	**4.6**	**6.5**	**5.1**	**4.9**	**2.8**	**-0.1**	**2.0**	**2.1**
Industry	**0.8**	**6.9**	**8.0**	**8.1**	**9.8**	**6.7**	**7.0**	**4.2**	**2.7**	**0.5**
Mining & quarrying	2.9	10.8	4.5	3.8	0.4	-2.2	1.8	4.2	2.7	0.1
Manufacturing	-1.7	7.1	8.6	9.5	12.1	6.9	6.4	3.1	0.6	-1.0
Electricity, gas, water supply & other utility services	8.6	9.2	7.5	9.2	6.7	8.7	8.3	4.3	8.6	3.6
Construction	3.3	4.8	8.0	6.4	9.6	8.5	9.7	7.1	5.7	3.3
Services	**9.4**	**6.8**	**8.0**	**8.2**	**7.1**	**7.3**	**7.2**	**8.4**	**6.9**	**6.8**
Trade, hotel, transport, communication and services related to broadcasting	8.3	8.3	8.3	6.4	7.8	6.9	6.9	6.0	7.1	4.8
Financial, real estate & professional services	7.8	4.8	6.8	5.5	6.5	7.0	7.2	9.5	5.9	5.8
Public administration, defence and other services	14.8	8.8	9.2	15.2	7.5	8.6	7.5	10.7	8.5	11.6
GVA at basic price	**5.9**	**6.6**	**7.3**	**7.9**	**7.7**	**6.9**	**6.3**	**5.7**	**4.9**	**4.3**
GDP at market prices	**6.0**	**6.8**	**7.7**	**8.1**	**8.0**	**7.0**	**6.6**	**5.8**	**5.0**	**4.5**

Source: *National Statistical Office (NSO).*

Data on Quarter-wise Growth of GVA and GDP at Constant (2011-12) Prices (percent) has been taken from the monthly economic report of November 2019 of the Finance Ministry and shown in Table 5 depicting slowdown of Indian Economy.

RBI financial stability report December 2019 states that the global economy confronted a number of uncertainties – a delay in the BREXIT deal, trade tensions,

whiff of an impending recession, oil market disruptions and geopolitical risks - leading to significant deceleration in growth. These uncertainties weighed on consumer confidence and business sentiment, dampened investment intentions and are likely to remain a key drag on global growth. On the domestic front, aggregate demand slackened in Q2:2019-20, further extending the growth deceleration. While the outlook for capital inflows remains positive, India's exports could face headwinds in the event of sustained global slowdown, but current account deficit is likely to be under control reflecting muted energy price outlook. Various policy announcements by the Government coupled with the Reserve Bank's accommodative stance are expected to provide an enabling environment to bolster economic performance in the medium-term, though short term pressures remain. Reviving the twin engines of consumption and investment while being vigilant about spillovers from global financial markets remains a critical challenge going forward (RBI, December 2019).

Aggregate demand slackened in Q2:2019-20 to 4.5 per cent, further extending the sequential quarterly deceleration. This deceleration in the economy was led by a sharp slowdown in gross fixed capital formation (GFCF) and sluggishness in private final consumption expenditure (PFCE). The slowdown might have turned out to be more pronounced except for government consumption, which provided a cushion to slackening demand conditions. In the 'Fifth Bi-monthly Monetary Policy Statement, 2019-20' in December 2019, the Reserve Bank revised real Gross Domestic Product (GDP) growth projections for 2019-20 from 6.1 per cent in the October 2019 policy to 5.0 per cent (4.9- 5.5 per cent in H2:2019-20 and 5.9-6.3 per cent for H1:2020-21). While the government's fiscal deficit numbers have improved over the years, revenue shortfall amidst weaker private consumption and investment could challenge fiscal parameter.

India's exports have been facing headwinds. Merchandise exports declined by 2.0 per cent (y-o-y) during April-November 2019 as against an expansion of 10.9 per cent in the corresponding period in the previous year. With global growth and trade projected to slow down further, India's exports could face challenging demand conditions going forward. As on December 13, 2019 the foreign exchange reserves stood at USD 454.49 billion.

The country's investment to GDP ratio has remained stagnant at 28 percent for nearly four years after being 36 percent for the previous five years. This 36 percent rate too was a decline from a peak of 38 percent in 2008. If the investment ratio increases a couple of percentage points, it would translate into required investment of nearly Rs. 3 trillion. The challenge, of course, is that this investment has to come majorly from private sector, since the public sector is mostly in losses. That would also require urgently addressing debt issue in large sectors, such as power, telecom and civil aviation, and the GST collection (Swamy, 2019, pp. 132-171).

4.8 Challenges facing the sector

The share of manufacturing in India's GDP is low relative to the average in low and middle-income countries. It has not increased in any significant measure in the quarter century after economic liberalization began in 1991. Within manufacturing, growth has often been highest in sectors that are relatively capital intensive, such as automobiles and pharmaceuticals. This stems from India's inability to capitalize fully on its inherent labour and skill cost advantages to develop large-scale labour intensive manufacturing. Complex land and labour laws have also played a notable part in this outcome. There is a need to increase the pace of generating good quality jobs to cater

to the growing workforce, their rising aspirations and to absorb out-migration of labour from agriculture.

The micro, small and medium enterprises (MSME) is the backbone of the Indian economy which generates nearly 70 million jobs, have a network of 30 million units and manufactures more than 6000 differential products. In the recent past, MSMEs have emerged as one of the top employment generators in the past year according to the numbers shared by the Ministry of MSMEs, Government of India. The Indian economy is likely to emerge as one of the leading economies in the world, with an envisioned economy of $5 trillion by 2024-25. The Ministry of MSME has taken upon self to contribute around $2 trillion of it from the MSME sector.

An area which needs tremendous new focus and attention include the availability of cheaper electricity and natural gas to MSMEs. Currently, power DISCOMs and city gas distribution companies do not permit MSMEs in the industry to procure their own electricity or natural gas and charge them higher rates than their global counterparts (this issue is independent of the fact that fuel is not part of the GST regime as yet which is an added burden on the MSME). This means that even though they are efficient, they are burdened with expensive fuel which seriously harms their competitiveness. Government needs to urgently assist MSMEs to access efficient energy sources so that they can compete globally. While inverted duty structure is an area that government is already addressing through regulation and bonded warehouse manufacturing, it is crucial that interest rate reduction for MSMEs and assurance of on-time payments from state-owned enterprises is the new norm. With these new areas of focus, MSMEs will thrive towards being a large contributor in the Indian economy of tomorrow (Hiranandani, N. (2020)).

The manufacturing sector, especially micro, small and medium enterprises (MSMEs), which provide the bulk of employment for the skilled and semi-skilled in the labour force, has been growing at an abysmally low rate between 2% and 5%, and most recently below 2 percent. This collapse of MSME sector has resulted in the rise of unemployment and to a decline in the rate of saving and subsequently of investment to an alarmingly low level of 28% of GDP. GVA at Basic Prices for 2019-20 from 'Manufacturing' sector is estimated to grow by 2.0 per cent as compared to growth of 6.9 per cent in 2018-19.

GVA at Basic Prices for 2019-20 from 'Mining and Quarrying' sector is estimated to grow by 1.5 per cent as compared to growth of 1.3 per cent in 2018-19. The key indicators of Mining sector, namely, production of Coal, Crude Oil and Natural Gas registered growth rates of (-) 5.3 per cent, (-) 5.9 per cent and (-) 2.6 per cent, during April-November, 2019-20 as compared to 9.0 per cent, (-) 3.6 per cent and (-) 0.7 per cent respectively, during April-November, 2018-19.

The trade channel has itself become the mode of transmission of global impulses to domestic manufacturing and investment. This is evident in the close synchronisation across borders of sluggishness in industrial production and of the 'reluctance to invest'. In India, the deceleration in industrial output and its main component – manufacturing – to below 4 per cent during 2012-19 has larger consequences in terms of employment and income generation in both rural and urban areas. While the persisting weakness in capital goods production has evoked concerns about the investment slowdown, a source of worry is the subdued performance of consumer non-durables as well. In coincident movements, sales of leading consumer goods companies have slumped, and volume growth of Fast-moving consumer goods (FMCG) products has fallen to single digit rates. Clearly, rural demand has been

sapped by weaker harvests in 2018-19 relative to preceding years, and depressed crop prices. This has brought forward concerns about consumption joining investment in the overall slowdown, which is worrisome as consumption accounts for 57 per cent of GDP. This challenge naturally ascends the hierarchy of policy priorities. The index of industrial production decelerated in April-June 2019, pulled down by manufacturing and mining. On the other hand, strong growth in electricity generation propelled by rising demand mitigated the slowdown.

India has followed idiosyncratic policies in promoting skill-intensive industries, discouraging labour - intensive manufactures- a pattern that has not changed after the reforms because of the labour market rigidities. These scholars also contend that on an average, Indian firms tend to be small because workers cannot be Fired, preventing them from reaping the advantages of economies of scale in production. But since skilled workers and professionals are outside the purview of trade unions, India has specialized in skill-intensive industries (Kapila, 2019, p. 681).

The reformists believe that India's labour laws are the most protective of the organized labour, which makes firing of workers almost impossible, rendering labour a quasi fixed capital, leading to substitution of capital for labor, yielding little employment growth.

4.9 Steps taken by government to boost Industrial sector

The government has taken several initiatives to promote manufacturing. Among these are the Make in India, Action Plan aimed at increasing the manufacturing sector's contribution to 25 per cent of GDP by 2020, the Start-up India initiative to promote entrepreneurship and nurture innovation, and the Micro Units Development and Refinance Agency (MUDRA) and Stand-up India to facilitate access to credit. It has

also undertaken massive re-capitalisation of public sector banks to ease availability of credit to micro, small and medium enterprises (MSMEs). Besides, it has undertaken major infrastructure projects, such as the setting up of industrial corridors, to boost manufacturing.

Government of India has taken several measures to boost Industrial sector. Reviewing the host of reforms in the last few months, the Chief Economic Adviser K. Subramanian, gave a presentation on Major Interventions of government to Boost Economy on 13 December 2019 (Ministry of Finance, 2019). Alive to the imperatives of achieving a USD 5 trillion economy and to boost economic growth, Government of India has been taking pro-active steps. The major reforms undertaken by the government since May, 2019, are as follows:-

1. Measures to Support Consumption

To address temporary asset liability mismatches of otherwise solvent Non-Banking Financial Companies (NBFCs)/Housing Finance Companies (HFCs) without having to resort to distress sale of their assets for meeting their commitments the Government initiated Scheme to provide a one-time partial credit guarantee to PSBs for purchase of pooled assets of financially sound NBFCs/HFCs amounting to Rs. one lakh crore. It is expected that this measure would provide liquidity to the NBFC Sector and, in turn, enable them to continue to play their role in meeting the financing requirements of the productive sectors of economy including MSME, retail and housing. The NHB Board has approved additional liquidity support to HFCs of Rs. 20,000 crore taking the total to Rs. 30,000 crore. PSBs have been supporting NBFCs. PSBs have extended total support of Rs 2.56 Lakh crore to NBFCs by way of credit and pool buyout since September 2018. Under the Partial Guarantee scheme, till October 2019, PSBs have

accorded sanction to purchase of Rs 21,580 crore worth of pooled assets under the scheme within three months (PIB (2019, August 13)).

To increase the liquidity in the economy, the dues of 32 CPSEs were cleared by more than 60 per cent. Support to the NBFCs and HFCs helped to pick up the retail lending. More than 8 lakh repo-linked loans amounting to Rs 70,000 crore sanctioned till November 2019. Following RBI guidelines mandating banks to link their lending rates to external benchmarks, all PSBs have introduced Repo Rate linked loan products.

Government has infused ₹ 70,000 crores into public sector banks to enable release of ₹ 5 lakh crore liquidity in the market and to boost credit for a strong impetus to the economy. To further improve ease of living, they will leverage technology, offering online personal loans and doorstep banking, and enabling customers of one Public Sector Bank to access services across all Public Sector Banks. To achieve the GDP of $5 trillion by 2024-25, India needs to spend about $1.4 trillion (Rs. 100 lakh crore) over these years on infrastructure. In the past decade (FY 2008-17), India invested about $1.1 trillion on infrastructure. The challenge is to step-up annual infrastructure investment so that lack of infrastructure does not become a binding constraint on the growth of the Indian economy.

2. Measures to boost Investment

Continuous liberalization has resulted in record FDI inflows: $35 billion in H1 2019-20 as against $31 billion in H1 2018-19. Government has undertaken 66% of budgeted Capital Expenditure (CAPEX) of Rs. 3.38 lakh Cr by December 2019. Indian Railways & Ministry of Road Transport and Highways projected to undertake CAPEX of Rs. 2.46 lakh Cr by December 2019. Select CPSEs (32 Maharatnas and

Navratnas) have undertaken CAPEX of Rs. 98,000 Cr till November 2019. CAPEX of Rs. 60,000 Cr has been projected to be undertaken in the rest of the FY 19-20. The Union Cabinet approved the establishment of a 'Special Window' realty fund worth Rs. 25000 crore to provide priority debt financing for the completion of stalled housing projects that are in the Affordable and Middle-Income Housing sector. Necessary changes in IBC is being carried out to enable the Fund's operations.

3. Consolidated PSBs for strong national presence & global reach

The finance minister in the press conference on 30 August 2019 said that the 27 public sector banks existing in 2017 will be reduced to 12 after the mergers announced are implemented. Merger of six smaller PSBs with State Bank of India and the merger of Vijaya Bank, Dena Bank with Bank of Baroda has already taken place. Therefore, 10 public sector banks have already been reduced to two larger ones i.e the post-merger SBI and post-merger Bank of Baroda. Creation of next-generation banks was imperative for India to become a $5 trillion economy in the next five years. There will be only six next Gen PSBs viz State Bank of India (amalgamated earlier), Bank of Baroda (amalgamated earlier), Punjab National Bank, Canara Bank, Union Bank of India and Indian Bank.

The amalgamated bank will be better equipped in the changing environment to meet the credit needs of a growing economy, absorb shocks and capacity to raise resources. Economies of scale and wider scope would position it for improved profitability, wider product offerings, and adoption of technology and best practices across amalgamating entities for cost efficiency and improved risk management, and financial inclusion through wider reach. It would also enable creation of a bank with scale comparable to global banks and capable of competing effectively in India and

globally. Public at large shall benefit in terms of enhanced access to banking services through a stronger network, the ability to support a wider offering of product and services, and easy access to credit.

4. Credit expansion via PSBs

In addition to capital infused earlier by the Government, provision of Rs 70,000 crore has been made for infusion of capital by the Government in banks in the Budget for the current Financial Year to boost credit for impetus to the economy. Rs 60,314 crore has been infused so far from this provision, equipping banks for growth.

Government puts in place measures to protect Commercial decision making by Banks. The Finance Minister has repeatedly assured Bankers that adequate measures would be taken to protect honest commercial decisions taken by them and distinction would be made between genuine commercial failures and culpability. Every Bank was also required to take steps to dispose of internal disciplinary and vigilance cases in a time bound manner so that such cases do not linger on account of procedural delay so as to avoid adverse impact on staff morale and reduce scope for harassment. As part of this endeavor of Government, Section 17A was incorporated in Prevention of Corruption Act requiring prior permission before initiating investigation against a public servant. Internal Advisory Committee (IAC) in banks is to classify cases as vigilance or no vigilance and IAC/CVO decision is considered to be final. Advisory Board for Bank Frauds set up.

Finance Minister, had announced in September the launch of Customer Outreach Initiative by Public Sector Banks (PSBs) to improve credit delivery and support the needs of the economy, with particular focus on MSMEs, NBFCs, corporates, retail and agriculture sector borrowers, without compromising prudential lending. Customer

Outreach in October 2019 resulted in total credit disbursement of Rs. 2.52 lakh crore. The strong outreach effort of PSBs has continued in November as well, with disbursement of ₹ 2.39 lakh crore to MSMEs, NBFCs, corporates, retail and agriculture sector borrowers. This has raised the total disbursement by PSBs to these sectors since the launch of the Customer Outreach in October to ₹ 4.91 lakh crore. To boost the MSME sector, out of the total, PSBs have disbursed ₹ 35,775 crore in November, raising the total Customer Outreach credit disbursed to MSMEs to ₹ 72,985 crore. For NBFCs, out of the total, PSBs have disbursed ₹ 25,525 crore in November, increasing sharply from ₹ 19,628 crore in October, raising the total Customer Outreach credit disbursed to NBFCs to ₹ 45,153 crore. Total support sanctioned by PSBs in the form of credit to (including co-origination and on-lending) and pool buyouts from NBFCs since the IL&FS default in September 2018 till November 2019 has risen to ₹ 4.23 lakh crore, including pool-buyouts of ₹ 1.24 lakh crore. PSBs are being adequately capitalised and record recovery underway, have sufficient liquidity to support credit growth.

5. Key Reforms in Capital Markets to enable financing

Law has been passed by Parliament for setting up unified regulator for International Financial Services. This will enable capital flows by reducing regulatory and compliance burden. Bring back trading of Indian financial products from off shore centres. Regulatory burden for equity/equity-like instruments eased through comprehensive Rules for FEMA Non-Debt Instruments. One Unified market across the country for financial instruments through rationalisation of Stamp Duty. In consultation with the MoF, SEBI has approved several changes in the KYC norms for FPIs on 5th November 2019. Increase in statutory limit for FPI investment in a company from 24% to sectoral foreign investment limit w.e.f. 01.04.2020.

6. <u>Reforms: Disinvestment to enhance economic efficiency</u>

The Government has given 'in-principle' approval for strategic disinvestment of 33 Central Public Sector Enterprises (CPSEs) including subsidiaries, Units and Joint Ventures with sale of majority stake of Government of India and transfer of management control. Government follows a policy of strategic disinvestment of CPSEs, which are not in 'priority sectors' where competitive markets have come of age. For this purpose, NITI Aayog has been mandated to identify such CPSEs based on the criteria of (i) National Security; (ii) Sovereign function at arm's length, and (iii) Market Imperfections and Public Purpose. However, profitability/loss of the CPSEs is not among the relevant criteria.

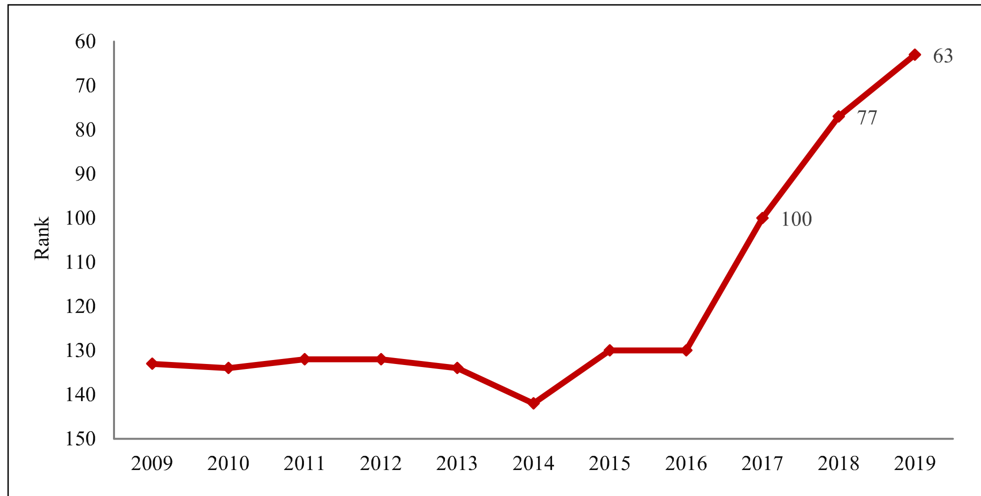
Few companies Air India, BPCL, CONCOR & SCI are likely to be disinvested. Strategic disinvestment of CPSEs is being guided by the basic economic principle that Government should discontinue in sectors, where competitive markets have come of age and economic potential of such entities may be better discovered in the hands of strategic investor due to various factors such as infusion of capital, technological upgradation and efficient management practices.

7. <u>Measures to improve 'Ease of Doing Business'</u>

The government of India has taken several industry specific reform initiatives since 2014 that has significantly improved the overall business environment. The country was 77th among 190 countries in the previous ranking last year, an improvement by 23 places. To improve ease of doing business, the emphasis has been given to simplification and rationalization of the existing rules and introduction of information technology to make governance more efficient and effective. India has moved 14

places to be 63rd among 190 nations in the World Bank's ease of doing business ranking released in October 2019 as shown in Figure 12.

Figure 12: India's ranking in World Bank Ease of Doing Business Reports



Source: World bank

The report assesses improvement in ease of doing business environment in Delhi and Mumbai. IBC is a primary contributor to the same. India established an insolvency regime in 2016. Before the implementation of the reform, it was very burdensome for secured creditors to seize companies in default of their loans. The most common way for secured creditors to recover the debt was through very lengthy and burdensome foreclosure proceedings that lasted almost five years, making efficient recovery almost impossible. The new law introduced the option of reorganization (corporate resolution insolvency process) for commercial entities as an alternative to liquidation or other mechanisms of debt enforcement, reshaping the way insolvent firms could restore their financial well-being or close down. With the reorganization procedure available, companies have effective tools to restore financial viability, and creditors have access to better tools to successfully negotiate and have greater chances to revert

the money loaned at the end of insolvency proceedings (World Bank, 2020, Doing Business 2020).

Some of the measures taken by the Government for EODB are as follows:-

a) Ring-fencing successful bidders of stressed assets from the risk of criminal proceedings against offences committed by previous management and promoters. Threshold for financial creditors to prevent triggering of insolvency for small amounts.
b) No need for Debenture Redemption Reserve (DRR) for debentures issued by Listed companies, Banks, NBFCs and HFCs. Will reduce cost of issuance and help in developing the corporate bond market.
c) CSR violations de-criminalized and to be treated as civil offence. NBFCs permitted to use the Aadhaar authenticated bank KYC.
d) Reform in wages law- Code on Wages 2019 notified in August 2019. Subsumes four acts to transform old and obsolete labour laws into more accountable and transparent ones. Enhances ease of compliance. Code on Occupational Safety, Health and Working Conditions Bill, 2019, introduced in Parliament in July 2019. 13 Central Labour Laws were brought in ambit of New Code. Industrial Relations Code, 2019 was introduced in Parliament on 28th November 2019 which amalgamates and rationalizes three Central Labour Acts to impart flexibility to the exit provisions (relating to retrenchment etc.).

8. Corporate tax rates cut

Given large market and large labour force, these tax rates make India more attractive than other countries In order to promote growth and investment following measures have been taken by the government:-

a) A new provision has been inserted in the Income-tax Act with effect from FY 2019-20 which allows any domestic company an option to pay income-tax at the rate of 22% subject to condition that they will not avail any exemption/incentive. The effective tax rate for these companies shall be 25.17% inclusive of surcharge & cess. Also, such companies shall not be required to pay Minimum Alternate Tax.

b) In order to attract fresh investment in manufacturing and thereby provide boost to 'Make-in-India' initiative of the Government, another new provision has been inserted in the Income-tax Act with effect from FY 2019-20 which allows any new domestic company incorporated on or after 1st October 2019 making fresh investment in manufacturing, an option to pay income-tax at the rate of 15%. This benefit is available to companies which do not avail any exemption/incentive and commences their production on or before 31st March, 2023. The effective tax rate for these companies shall be 17.01% inclusive of surcharge & cess. Also, such companies shall not be required to pay Minimum Alternate Tax.

c) A company which does not opt for the concessional tax regime and avails the tax exemption/ incentive shall continue to pay tax at the pre-amended rate. However, these companies can opt for the concessional tax regime after expiry of their tax holiday/exemption period. After the exercise of the option they shall be liable to pay tax at the rate of 22% and option once exercised cannot

be subsequently withdrawn. Further, in order to provide relief to companies which continue to avail exemptions/incentives, the rate of Minimum Alternate Tax has been reduced from existing 18.5% to 15%.

d) In order to stabilise the flow of funds into the capital market, it is provided that enhanced surcharge introduced by the Finance (No.2) Act, 2019 shall not apply on capital gains arising on sale of equity share in a company or a unit of an equity oriented fund or a unit of a business trust liable for securities transaction tax, in the hands of an individual, HUF, AOP, BOI and AJP.

e) The enhanced surcharge shall also not apply to capital gains arising on sale of any security including derivatives, in the hands of Foreign Portfolio Investors (FPIs). In order to provide relief to listed companies which have already made a public announcement of buy-back before 5th July 2019, it is provided that tax on buy-back of shares in case of such companies shall not be charged.

f) The Government has also decided to expand the scope of CSR 2 percent spending. Now CSR 2% fund can be spent on incubators funded by Central or State Government or any agency or Public Sector Undertaking of Central or State Government, and, making contributions to public funded Universities, IITs, National Laboratories and Autonomous Bodies (established under the auspices of ICAR, ICMR, CSIR, DAE, DRDO, DST, Ministry of Electronics and Information Technology) engaged in conducting research in science, technology, engineering and medicine aimed at promoting SDGs.

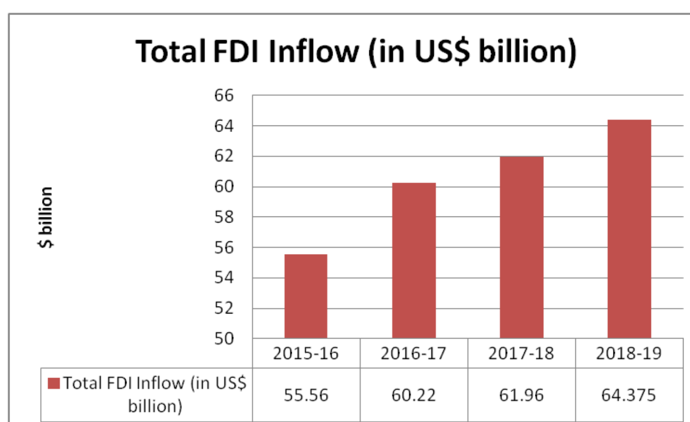
4.10 Foreign Direct Investment(FDI) major driver of growth

FDI is a major driver of economic growth and a source of non-debt finance for the economic development of the country. Government has put in place an investor friendly policy on FDI, under which FDI up to 100% is permitted on the automatic

route in most sectors/ activities. FDI policy provisions have been progressively liberalized across various sectors in recent years to make India an attractive investment destination. Some of the sectors include Defence, Construction Development, Trading, Pharmaceuticals, Power Exchanges, Insurance, Pension, Other Financial Services, Asset reconstruction Companies, Broadcasting and Civil Aviation.

These reforms have contributed to India attracting record FDI inflows in the last 5 years. Total FDI into India from 2014-15 to 2018-19 has been US $ 286 billion as compared to US $ 189 billion in the 5-year period prior to that (2009-10 to 2013-14). In fact, total FDI in 2018-19 i.e. US $ 64.37 billion (provisional figure) is the highest ever FDI received for any financial year.

Figure 13: Total FDI inflow from 2015-16 to 2018-19



Source GoI website data.gov.in

India's FDI inflows in 2018-19 remained strong at USD 64.375 billion marking a 6% growth over the previous year. During 2018-19 total FDI equity inflows were US$ 44.36 billion of which more than 70% received from Singapore, Mauritius, Netherlands, Japan and United Kingdom (Table 6). Earlier, the government had issued a notification allowing 100% FDI in insurance intermediaries. The government also allowed up to 26% FDI in digital news and current affairs media on a prior approval basis. FDI equity inflows rose 28% in the first quarter of 2019-20 to $16.3

billion from $12.7 billion in the year-ago period. The Total FDI inflows (Equity inflows + Re-invested earnings + Other capital) in India stands at USD 14 billion during Q2 - July to September 2019-20. During April to September 2019-20, total FDI inflows stands at about USD 35 billion. During April to September 2019-20, FDI equity inflows stands at about USD 26 billion as against USD 23 billion during the same corresponding period of last year, registering a growth rate of 15% year on year.

TABLE 6 : SHARE OF TOP INVESTING COUNTRIES: FDI EQUITY INFLOWS *(Financial years):*

Amount in Rupees Crores (in US$ Million)

Rank s	*Country*	*2017-18 (April – March)*	*2018-19 (April – March)*	*2019-20 (April – June)*	*%age to total Inflows (in terms of US $)*
1.	MAURITIUS	102,492 (15,941)	57,139 (8,084)	32,484 (4,676)	32%
2.	SINGAPORE	78,542 (12,180)	112,362 (16,228)	37,106 (5,339)	20%
3.	JAPAN	10,516 (1,633)	20,556 (2,965)	3,284 (472)	7%
4.	NETHERLANDS	18,048 (2,800)	27,036 (3,870)	9,423 (1,356)	7%
5.	U.K.	5,473 (847)	9,352 (1,351)	2,056 (295)	6%
6.	U.S.A.	13,505 (2,095)	22,335 (3,139)	10,119 (1,455)	6%
7.	GERMANY	7,245 (1,124)	6,187 (886)	1,135 (163)	3%
8.	CYPRUS	2,680 (417)	2,134 (296)	406 (58)	2%
9.	FRANCE	3,297 (511)	2,890 (406)	854 (123)	2%
10.	UAE	6,767 (1,050)	6,356 (898)	718 (103)	2%
TOTAL FDI INFLOWS FROM ALL COUNTRIES		288,889 (44,857)	309,867 (44,366)	113,511 (16,330)	

Source: QUATERLY FACT SHEET, DPIIT

4.11 Measures to boost Foreign Direct Investment

In Union Budget 2019-20, Finance Minister proposed to further consolidate the gains under FDI in order to make India a more attractive FDI destination. Sector specific breakup of FDI equity inflows for last three years is mentioned in Table 7.

TABLE 7: SECTORS ATTRACTING HIGHEST FDI EQUITY INFLOWS:

Amount in Rs. Crores (in US$ Million)

Ranks	*Sector*	*2017-18 (April – March)*	*2018-19 (April – March)*	*2019-20 (April – June)*	*Cumulative Inflows (April, 00 – June, 19)*	*% age to total Inflows (In terms of US$)*
1.	**SERVICES SECTOR ****	43,249 **(6,709)**	63,909 **(9,158)**	19,462 **(2,799)**	435,764 **(76,948)**	**18%**
2.	**COMPUTER SOFTWARE & HARDWARE**	39,670 **(6,153)**	45,297 **(6,415)**	15,585 **(2,241)**	237,341 **(39,479)**	**9%**
3	**TELECOMMUNICATIONS**	39,748 **(6,212)**	18,337 **(2,668)**	29,352 **(4,227)**	217,601 **(37,053)**	**8%**
4.	**CONSTRUCTION DEVELOPMENT: Townships, housing, built-up infrastructure and construction-development projects**	3,472 **(540)**	1,503 **(213)**	532 **(77)**	120,146 **(25,122)**	**6%**
5.	**TRADING**	28,078 **(4,348)**	30,963 **(4,462)**	7,921 **(1,138)**	151,520 **(24,160)**	**6%**
6.	**AUTOMOBILE INDUSTRY**	13,461 **(2,090)**	18,309 **(2,623)**	6,756 **(972)**	130,745 **(22,359)**	**5%**
7.	**CHEMICALS (OTHER THAN FERTILIZERS)**	8,425 **(1,308)**	13,685 **(1,981)**	1,008 **(145)**	92,070 **(16,727)**	**4%**
8.	**DRUGS & PHARMACEUTICALS**	6,502 **(1,010)**	1,842 **(266)**	1,581 **(227)**	85,746 **(16,210)**	**4%**
9.	**CONSTRUCTION (INFRASTRUCTURE) ACTIVITIES**	17,571 **(2,730)**	15,927 **(2,258)**	3,698 **(532)**	97,571 **(15,337)**	**4%**
10.	**POWER**	10,473 **(1,621)**	7,330 **(1,106)**	1,320 **(190)**	79,209 **(14,506)**	**3%**

***** Services sector includes Financial, Banking, Insurance, Non-Financial / Business, Outsourcing, R&D, Courier, Tech. Testing and Analysis***

Source: Department for Promotion of Industry and Internal Trade (DPIIT) website

The Union Cabinet has approved the proposal for Review of Foreign Direct Investment on various sectors on 28 August 2019. Major Impact and Benefits from FDI Policy Reform are as follows:-

i. The changes in FDI policy will result in making India a more attractive FDI destination, leading to benefits of increased investments, employment and growth. In the coal sector, for sale of coal, 100% FDI under automatic route for coal mining activities including associated processing infrastructure will attract international players to create an efficient and competitive coal market.

ii. Further, manufacturing through contract contributes equally to the objective of Make in India. FDI now being permitted under automatic route in contract manufacturing will be a big boost to Manufacturing sector in India.

iii. Easing local sourcing norms for FDI in Single Brand Retail Trading (SBRT) will lead to greater flexibility and ease of operations for SBRT entities,

besides creating a level playing field for companies with higher exports in a base year. In addition, permitting online sales prior to opening of brick and mortar stores brings policy in sync with current market practices. Online sales will also lead to creation of jobs in logistics, digital payments, customer care, training and product skilling.

The above amendments to the FDI Policy are meant to liberalize and simplify the FDI policy to provide ease of doing business in the country, leading to larger FDI inflows and thereby contributing to growth of investment, income and employment. FDI is a major driver of economic growth as it enhances productivity by bringing capital, skills and technology to the host country.

4.12 Way forward

Reviving consumption demand and private investment has assumed the highest priority in 2019-20. This may involve strengthening the banking and non-banking sectors, a big push for spending on infrastructure and implementation of much needed structural reforms in the areas of labour laws, taxation, and other legal reforms, which will also enhance ease of doing business in pursuit of fulfilling the vision of India becoming a US$ 5 trillion economy by 2024-25. The demographic of the labour workforce is changing into multi-job, part-time/full-time workforce. Hence, it is imperative that the labour laws of India undergo a large holistic reform to understand the 21st century Indian and to balance the needs of protecting the workforce and enhancing the competitiveness of the MSMEs that needs to be urgently undertaken. While the MSMEs are grateful for the steps undertaken by the government of India, labour reform, liquidity and energy availability at globally competitive rates are also essential for MSMEs to move ahead.

Chapter-5

Infrastructure: The Major Contributor to achieving the $ 5 trillion Economy

योजनानां सहस्रं तु शनैर्गच्छेत् पिपीलिका ।
आगच्छन् वैनतेयोपि पदमेकं न गच्छति ॥
(अर्थात यदि चींटी चल पड़ी तो धीरे-धीरे वह एक हजार कोस भी चल सकती है।
परन्तु यदि गरूड़ जगह से नहीं हिला तो वह एक पग भी आगे नही बढ़ सकता।)

5.1 Significance & importance of Infrastructure in economic growth

Infrastructure is generally defined as the physical framework of facilities through which goods and services are provided to the public. Its linkages to the economy are multiple and complex, as it affects production and consumption directly, creates positive and negative spillover effects and involves large inflows of expenditure. Infrastructure services- electricity, telecommunications, roads, rail, ports and airports- are crucial to the development of a strong, modern and efficient economy. High cost of production, processing and distribution arising from inadequate and inefficient infrastructure can prevent the economy from realizing its full growth potential regardless of the progress on other fronts. Lack of access to basic transportation, energy and communication services will not only make living conditions difficult but also make participation in any modern economy impossible.

The infrastructure is important for faster economic growth and alleviation of poverty in the country. The adequate infrastructure in the form of road and railway transport system, ports, power, airports and their efficient working is also needed for integration of the Indian economy with other economies of the world. The following are the important constituents of infrastructure:-

a) Power and the source of its production such as coal and oil;
b) Roads and road transport;
c) Railways;
d) Communication, especially telecommunication;
e) Ports and airports; and
f) For agriculture, irrigation constitutes the important infrastructure.

It needs to be emphasized that good quality infrastructure is important not only for faster economic growth but also to ensure inclusive growth. By inclusive growth we mean that benefits of growth are shared by the majority of the people of a country. Thus the inclusive growth will lead to the alleviation of poverty and reduction in income inequality in the country. For example, micro, small and medium enterprises (MSME) are dispersed throughout the economy and production by them and their growth require access to quality and reliable infrastructure services to compete efficiently with large-scale enterprises which can often build some of their own infrastructure such as installing their own small power plants or generators. Besides, large-scale firms can even locate themselves near ports and near transport hubs where required infrastructure is available. Small enterprises, on the other hand, are dispersed widely in the economy and have to rely on the availability of the general infrastructure facilities. Thus, by building up general infrastructure facilities helps the small enterprises to compete successfully with large-scale industries and being labour-intensive generate large employment opportunities for the workers. This will help to alleviate the poverty in developing countries.

The India Infrastructure Report prepared by Rakesh Mohan committee during 1996 set the agenda for reform of the infrastructure sector and highlighted that India's problem was that of poor infrastructure holding back development which can be

solved by way of bringing in the private sector into most areas of infrastructure. The report classified electricity, gas, water supply, telecom, roads, industrial parks, railways, ports, airports, urban infrastructure, and storage as infrastructure.

5.2 Overview of Physical Infrastructure in India

The role of infrastructure development in economic growth has been well recognized in the literature. Connectivity is the lifeblood of an economy. The Government has given a massive push to all forms of physical connectivity through Pradhan Mantri Gram Sadak Yojana, industrial corridors, dedicated freight corridors, Bhartamala and Sagarmala projects, Jal Marg Vikas and UDAN Schemes.

5.2.1 Roads

Roads are part of an integrated multimodal system of transport which provides crucial links to airports, railway stations, ports and other logistical hubs and acts as a catalyst for economic growth by playing a critical role in the supply chain management. It is the dominant mode of transportation in comparison with rail, air traffic and inland water-ways and 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. The share of transport sector in the GVA for 2017-18 was about 4.77 per cent of which the share of road transport is the largest at 3.06 per cent, followed by the share of the Railways (0.75 per cent), air transport (0.15 per cent) and water transport (0.06 per cent) (Economic Survey 2019-20, Ministry of Finance, 2020).

India has a road network of about 58.98 lakh kms as on 31 March, 2017 with rural roads constituting 70.65 per cent and National highways constituting 1.94 per cent. Ministry of Road Transport and Highways (MORTH) declared 2018-19 as the 'Year

of Construction', and has been making constant efforts to expand and upgrade the network of National Highways in the country as a result of which road construction in kms grew @ 30 kms per day in 2018-19 as compared to 12 kms per day in 2014-15.

Shri Nitin Gadkari, Minister for Rood Transport & Highways in a press release on 24 January 2020 informed that 22 Greenfield Corridors of length 7500 kms are being developed with a total capital cost of Rs. 3.00 lakh crore. Work has started on some while awarding all other projects are/ will be completed expeditiously. These projects are being pursued vigorously and are being implemented on priority. He added that besides reducing length and decongesting existing NHs, the projects will work as growth engines as they fast through the less developed backward / tribal areas. The development of way-side amenities will result in more opportunities for business and employment. The minister also added that the construction of National Highways in terms of kms per day have been increasing and this is targeted to reach the level of 40 kms per day (PIB (2020, January 24)).

This was a year for consolidating the gains that accrued from major policy decisions taken in the previous five years, a time for monitoring of ongoing projects, tackling road blocks and adding to the already impressive pace of work achieved during the past years. During 2018-19, projects in about 5,494 km length were awarded and completion was achieved in about 10,855 km length of roads. The rate of development of roads has increased significantly from about 11.7 km during 2013-14 to about 30 km now. During the current year, projects for 3211 km length have been awarded and 5958 km length has been constructed till November 2019. National Highways (NHs) length has increased from 91,287 km in April, 2014 to about 1,32,500 km. as on 31.12.2019. The Ministry proposes to develop additional 60,000 kms of National Highways in the next five years, of which 2500 km are Express

Ways/Access Controlled Highways, 9000 kms Economic Corridors, 2000 kms for Coastal and Port Connectivity Highways and 2000 kms Border Road/ Strategic Highways. The Ministry also intends to improve connectivity for 100 tourist destinations and construct Bypasses for 45 towns/cities during this period (PIB (2020, January 01)).

Major outcome in Road sector in last five years were construction of Eastern Peripheral Expressway, Delhi Meerut Expressway and Dhola-Sadiya Bridge. Delhi Meerut Expressway is the first national highway in the country with 14 lanes, dedicated cycle tracks and pedestrian paths with several eco-friendly features. Under PMGSY total 9222 rural roads with total length 49,037.55 Kms have been constructed in FY 2018-19.

The major constraints faced are availability of funds for financing large projects, lengthy processes in acquisition of land and payment of compensation to the beneficiaries, environmental concerns, time and cost overruns due to delays in project implementation, procedural delays, lesser traffic growth than expected increasing the riskiness of the projects resulting in stalled or languishing projects and shortfall in funds for maintenance. Huge investments have been made in the sector with total investment increasing more than three times from Rs. 51,914 crore in 2014-15 to Rs. 1,58,839 crore in 2018-19. In India, the investments in roads have been financed from budgetary support, internal and extra-budgetary resources (IEBR) and private sector investment. Budgetary Support accounted for 48 per cent of the investments in 2018-19 and IEBR accounted for 39 per cent with private investment accounting for 14 per cent.

5.2.2. Railways

Indian Railways (IR) with over 68,000 route kms is the third largest network in the world under single management. During the year 2018-19, Indian Railways carried 120 crore tonnes of freight and 840 crore passengers making it the world's largest passenger carrier and 4th largest freight carrier (Economic Survey 2019-20, Ministry of Finance, 2020). In 2018-19, IR carried 1221.39 million tonnes of revenue earning freight showing an increase of 61.84 million tonnes over the freight traffic of 2017-18 and translating into an increase of 5.33 per cent. The incident of train collisions has come down to zero in the year 2018-19. IR has initiated a major electrification program for electrifying 100 per cent of its Broad Gauge network. This would reduce the nation's dependence on imported diesel oil. As on 01 April, 2019, Indian Railways has 35,488 Route Kilometre (RKM) of network commissioned on electric traction which constitutes 51.85 per cent of total network.

It is estimated that Railway Infrastructure would need an investment of Rs. 50 lakh crores between 2018-2030. Given that the capital expenditure outlays of Railways are around 1.5 to 1.6 lakh crores per annum, completing even all sanctioned projects would take decades. Budget 2019-20 has proposed to use Public-Private Partnership to unleash faster development and completion of tracks, rolling stock manufacturing and delivery of passenger freight services.

NITI Aayog, the government's think-tank, is pushing for a comprehensive plan that envisages a holistic development of the area around railway stations, which has strong potential to draw private investment. The Narendra Modi government's goal of redeveloping 400 stations is an ambitious mega railway project involving expenditure of over Rs 1 lakh crore. It envisages opening shopping plazas, office complexes,

hotels, multiplexes and parking lots on rail land, as well as other commercial activities. The project also involves making provisions for improved passenger amenities at stations. For three stations (Anand Vihar, Bijwasan, and Chandigarh), contracts have been awarded by Indian Railway Station Development Corporation (IRSDC) on 30.10.2019.

Indian Railways to manufacture 44 rakes of Vande Bharat Trains. Its Production Unit Integral Coach Factory (ICF), Chennai set the process in motion by publishing tender on 22nd December 2019 for supply of electrical equipment and other items for 44 train sets of 16 coaches each. The procurement shall be done in accordance with extant "Make in India" policy of DPIIT, Government of India. First Tejas Train between Delhi-Lucknow started operating in October 2019 – the first ever train with operations managed solely by IRCTC and not Indian Railways. The Union Cabinet on 24 December 2019 approved a transformational organisational restructuring of the Indian Railways. This historic reform will go a long way in achieving Government's vision of making Indian Railways the growth engine of India's vikas yatra. Unification of all different Railway Cadre services into Indian Railway Management Service (IRMS) will promote smooth working of Railways, expedite decision making, create a coherent vision for the organisation and promote rational decision making.

The Dedicated Freight Corridor is targeted to be fully commissioned in phases by the year 2021. Eastern Dedicated Freight Corridor (EDFC) is from Ludhiana to Dankuni (1318 Kms Ludhiana to Sonnagar and 538 Kms Sonnagar to Dankuni) and Western Dedicated Freight Corridor (WDFC) is from Jawaharlal Nehru Port Terminal (JNPT) to Dadri (1504 Kms). It is designed for a maximum speed of 100 Kmph with capacity to run long haul train of 1500 meter length. Dedicated Freight Corridors (DFC) are gateways to India's superfast growth and development. First sections of Eastern DFC

(Bhadan to Khurja, 200 Kms) and Western DFC (Rewari to Madar, 200 Kms) have been completed.

Railways has embarked on transitioning to sustainable rail transport with a six times increase in electrification from 610 RKM during 2013-14 to 4,087 RKM during 2017-18. 100% Electrification of Broad Gauge Routes of Indian Railways is targeted by 2021-22.

Railways has achieved significant milestones in moving the country's economy faster with the highest ever freight loading in 2018-19. Freight earnings have touched their highest level and is expected to be about Rs. 1.43 lakh cr in BE 2019-20.

5.2.3. Aviation Sector in India

India is the third largest domestic market for civil aviation in the world. India has 136 commercially-managed airports by Airports Authority of India (AAI) and 6 under Public Private Partnerships (PPP) for Operation, Maintenance and Development of airports. India's scheduled domestic air transportation for passengers and goods has grown by 14 per cent and 12 per cent respectively in 2018-19. Total domestic and international passengers were 204 million in 2018-19. Impressive double-digit domestic air cargo growth of 12.1 per cent in 2018-19 over 2017-18 was achieved and air cargo handled reached 3.6 MMT. To meet the surging demand and providing air connectivity to remote regions, new Greenfield airports are being rapidly developed. At the end of 2018-19, a total of 107 airports provided scheduled airline operations.

Government of India has brought out National Civil Aviation Policy (NCAP), which is the stepping stone to provide robust air connectivity throughout the length and breadth of our country. The Policy also envisages to create an ecosystem which

encourages economic growth of the country, by enabling people to connect with ease at an affordable cost, through Regional Connectivity Scheme (RCS), aptly titled as UDAN (Ude Desh ka Aam Nagrik). 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. Overall, the scheme has provided connectivity to 23 unserved airports out of the aim to operationalize 100 by the year 2026-27. The UDAN Scheme is providing air connectivity to smaller cities and enabling the common citizens of our country to avail air travel. All these programmes are also helping bridge the rural-urban divide. 34,74,000 approx. numbers of passengers were flown under RCS-UDAN Scheme till December 2019. It has a direct bearing on major Airports since the smaller airports have been connected to various big cities. The travelling time has reduced drastically and public at large is benefitted for the purpose of tourism, medical emergencies and religious shrines, etc. (PIB (2019, December 23)).

As the world's third largest domestic aviation market, the time is ripe for India to enter into aircraft financing and leasing activities from Indian shores. This is critical to the development of a self-reliant aviation industry, creating aspirational jobs in aviation finance, besides leveraging the business opportunities available in India's financial Special Economic Zones (SEZs), namely, International Financial Services Centre (IFSC). Government will implement the essential elements of the regulatory roadmap for making India a hub for such activities.

The newly constituted Air India Specific Alternative Mechanism (AISAM), headed by Home Minister and comprising of Union Ministers of Commerce & Industry, Finance & Corporate Affairs and Civil Aviation, as members, has approved the release of the Preliminary Information Memorandum (PIM) for inviting Expression of

Interest (EOI) from the Interested Bidders (IBs) for Strategic Disinvestment of Air India in January 2020. A few of the key decisive parameters in the current PIM include transfer of management control and sale of 100% shares of Air India along with Air India's 100% stake in its subsidiary, Air India Express Limited and 50% stake in joint venture, AISATS.

The cost of ATF constitutes the major component of the cost of operations of airlines in India. Another area which has given wings to the growth of Indian civil aviation is the privatization of major airports under JV/PPP model and the policy of development of Greenfield airports which envisages synergy between the public and private sector.

Based on the performance of joint ventures in the airport sector, Government has decided to lease out six brownfield airports of Airports Authority of India (AAI) in Public-Private Partnership on Operation, Maintenance and Development model (Guwahati, Lucknow, Jaipur, Ahmedabad, Mangalore and Thiruvananthapuram), which is expected to enhance service quality at these airports besides bringing enhanced revenue to AAI. The Union Cabinet has approved the proposal in July 2019 for leasing out of three airports viz. Ahmedabad, Lucknow and Mangaluru of Airports Authority of India (AAI) through Public Private Partnership (PPP) to the highest bidder i.e. M/s. Adani Enterprises Ltd. Thiruvananthapuram, Guwahati and Jaipur airports are yet to be awarded. The proposal for leasing of next round of airports viz. Bhubaneswar, Varanasi, Indore, Amritsar, Raipur and Trichy Airports through PPP got recommended by AAI Board for which Transaction Advisor is being finalized. These projects will bring efficiency in delivery, expertise, enterprise and professionalism apart from harnessing the needed investments in the public sector. This will also result in enhanced revenues to the AAI, which may lead to further

investment by AAI at Tier II and Tier III cities and economic development in these areas in terms of job creation and related infrastructure.

As we know, aviation sector brings enormous benefits to communities and economies around the globe. It is a key enabler of economic growth, social development and tourism providing connectivity and access to markets globally.

5.2.4. Shipping

Shipping plays a pivotal role in India's trade dynamics. Shipping is essential to both commodity and services trade of any country. Around 95 per cent of India's trade by volume and 68 per cent in terms of value is transported by sea. As per the Indian Shipping Statistics 2018, "India had a fleet strength of 1400 vessels with gross registered tonnage (GRT) of 12.68 million. As on January 31, 2019, India had a fleet strength of 1405 ships with dead weight tonnage (DWT) of 19.22 million (12.74 million GT) including Indian controlled tonnage, with Shipping Corporation of India (SCI) having the largest share of around 30.52 per cent. Of this, around 458 ships of 17.58 million DWT (11.26 million GT) cater to India's overseas trade and the rest to coastal trade.

Port sector development is very crucial for the development of any economy. Ports handle around 90 per cent of EXIM Cargo by volume and 70 per cent by value. The Jal Marg Vikas project for capacity augmentation of navigation on National Waterways is aimed at smoothening internal trade carried through inland water transport. These initiatives will improve logistics tremendously, reducing the cost of transportation and increasing the competitiveness of domestically produced goods.

The Government of India had approved Bharatmala Pariyojana Phase-I in October, 2017 with an aggregate length of about 34,800 km (including 10,000 km residual NHDP stretches) at an estimated outlay of Rs. 5,35,000 crore for development of about 9,000 km length of Economic corridors, about 6,000 km length of Inter-corridor and feeder roads, about 5,000 km length of National Corridors Efficiency improvements, about 2,000 km length of Border and International connectivity roads, about 2,000 km length of Coastal and port connectivity roads, and about 800 km length of Expressways. Total of 255 road projects with an aggregate length of about 10,699 km have been approved till October, 2019 under Bharatmala Pariyojana with total Cost of Rs. 2,64,916 crore approximately. Bharatmala Pariyojana Phase-I is targeted for completion by 2021-22. The ambitious programme of Bharatmala would help develop national road corridors and highways, while Sagarmala would enhance port connectivity, modernization and port-linked industrialization. If Sagarmala is aimed at improving the infrastructure for external trade, equally it is the poor man's transport too. Waterways are proven as a cheap mode of transport (PIB (2019, December 09)).

India's first inland waterway multimodal terminal (MMT) at Varanasi was inaugurated on 12 November 2018 by Hon'ble Prime Minister and the first container consignment on Ganga which had sailed from Kolkata was received at Varanasi MMT on the same day. The main focus of MMT is to promote inland waterways as it is cheap and environment friendly. To enhance the access and establish alternative connectivity to the North East through Indo-Bangladesh Protocol route, dredging works between Ashuganj and Zakiganj and Sirajganj and Daikhawa in Bangladesh through 80:20 sharing (80 per cent by India and 20 per cent by Bangladesh) have been awarded. In October 2018, a Standard Operating Procedure of MoU on Passenger and

Cruise service on the Coastal and Protocol routes between India and Bangladesh has been signed to enhance bilateral movement of passengers/tourists. The cargo traffic on National Waterways was 55 million tonnes in 2017-18 and has increased by 31 per cent in 2018-19.

5.2.5. Telecommunication

Telecommunication has been recognized world-over as a powerful tool of development and poverty reduction through empowerment of masses. Growth in the telecom sector in India remains strong over the last few years on the back of strong consumer demand and supportive policies of the Government. As on March 2019, the total subscription stood at 118.34 crore out of which 51.42 crore connections were in the rural areas and 66.91 crore in the urban areas. As per a GSMA report, the mobile industry supports about 6.5 per cent of India's GDP. Telecom industry contribution to GDP is expected to reach 8.2 per cent by 2020. In 2018, mobile technologies and services generated 4.6 per cent of GDP globally, a contribution that amounted to US$3.9 trillion of economic value added.

The wireless telephony now constitutes 98.27 per cent of all subscriptions whereas share of landline telephones now stands at only 1.73 per cent. The overall tele-density in India stands at 90.45 per cent, the Rural tele-density being 57.35 per cent and Urban tele-density being 160.71 per cent at the end of September 2019. The private sector dominates with a share of 88.81 per cent (10,606 lakh connections) at the end of September, 2019 while the share of public sector was 11.19 per cent (1,336 lakh connections) (Economic Survey 2019-20, Ministry of Finance, 2020).

The world is at the cusp of a next generation of wireless technology-5G. The 5G has been conceived as a foundation for expanding the potential of the Networked Society.

The landscape is expanding to include massive scale of “smart things” to be interconnected. For India, 5G provides an opportunity for industry to reach out to global markets, and consumers to gain with the economies of scale and citizens to reap the benefits.

FDI has played a crucial role in shaping the progress of the telecom sector over the years by providing much needed finances for expansion of telecom infrastructure in the country. During 2018-19 FDI equity inflow touched US$2.67 billion – more than double rise from the level of US$1.3 billion witnessed in 2015-16.

There are 4 major players in the sector - 3 in the private sector and BSNL & MTNL in the public sector, operating in mutually exclusive zones. Since 2016, the sector has witnessed substantial competition and price cutting by the Telecom Service Providers (TSPs) creating financial stress in the sector. BSNL and MTNL are also affected by the tariff war that has impacted their cash flow resulting in mounting losses. As of the quarter ended March 2019, Jio has more than 30% gross revenue market share in 17 out of the total 22 circles in the country. Airtel and Vodafone-Idea each have more than 30% gross revenue market share in 13 circles. In fact, as on 31 March 2019, out of the 22 telecom circles, in terms of adjusted gross revenue, Jio has the largest market share in 16 circles, Vodafone-Idea leads in just five and Airtel in just one circle in Karnataka. Over the last three years, half a dozen operators have exited by either merging their businesses with existing TSPs or declaring bankruptcy. If the existing financial stress in the sector is not addressed, it could result in further bankruptcy and exit of TSPs from the market, leading to a state of virtual monopoly and absence of fair competition in the market.

5.2.6. Power sector

Power sector in India has witnessed a paradigm shift over the years due to the constant efforts of Government to foster investment in the sector. As a result, India improved its ranking in the Energy Transition Index published by World Economic Forum (76th position). Along with universal electrification, commendable progress has been made in generation and transmission of electricity. The installed capacity has increased from 3,44,002 MW in 2018 to 3,56,100.19 MW in 2019 (Share of Thermal- 66%, Renewable- 22%, Hydro- 13% and Nuclear- 2% in total installed capacity). Total generation of energy during 2018-19 was 1376 BU (including imports and renewable sources of energy). The capacity of thermal power is 64 per cent followed by renewable energy. Further, more than 46 per cent of power generation comes from private sector. As on March 2019, 2.62 crore households have been electrified since the launch of SAUBHAGYA scheme. Per Capita consumption of Energy showed a Compound Annual Growth Rate (CAGR) of 2.54% for the period 2011-12 to 2017-18.

Vision of year 2025 is to increase total installed capacity to 619 GW from 356 GW and to increase per capita electricity consumption to 1,616 Kwh from 1,181 Kwh.

As a part of Nationally Determined Contributions as per the Paris Accord on Climate Change, India has made a pledge that by 2030, 40% of our installed power generation capacity shall be from non-fossil fuel sources and also by 2030, reduce emission intensity of GDP by 33-35 % from 2005 level. Economic growth, increasing prosperity, a growing rate of urbanisation and rising per capita energy consumption has increased the energy demand of the country. Keeping in view the above and Government's commitment for a healthy planet with less carbon intensive economy, it

was decided in 2015 that 175 GW of renewable energy capacity will be installed by the year 2022. This includes 100 GW from solar, 60 GW from wind, 10 GW from biomass and 5 GW from small hydro power. The substantial higher capacity target will ensure greater energy security, improved energy access and enhanced employment opportunities. With the accomplishment of these ambitious targets, India will become one of the largest Green Energy producers in the world, even surpassing several developed countries. The Prime Minister in his address to Climate Action Summit stated that "India's renewable energy capacity would be increased to much beyond 175 GW, and later till 450 GW". In line with the objective of expanding renewable energy sector, several important initiatives were taken during year 2019 and total installed capacity of renewable energy reached 84.40GW by December 2019 ((PIB (2020, January 09)).

5.2.7. Housing

Housing is one of the fastest moving sectors in the country. According to Census 2011, 377.1 million Indians comprising 31.14 per cent of the country's population lived in urban areas, which are projected to grow more than 600 million by 2031. Urbanization in India has become an important and irreversible process, and it is an important determinant of economic growth and poverty reduction. The Real Estate (Regulation and Development) Act, 2016 (RERA) is one of the significant reforms implemented in the real estate sector. PMAY was launched on 25 June 2015 with the objective of providing pucca house with basic amenities to all eligible urban poor by 2022. So far 4,427 cities/towns have been included under PMAY (U). The construction sector accounts for 8.2 per cent of GDP which includes housing and employs about 12 per cent of the workforce. Therefore, the investment made under

PMAY (U) not only provides pucca houses to the eligible families to achieve the goal of 'Housing for All' but also triggers multiplier effect on the overall economy.

Smart Cities Mission (SCM) was launched in June 2015 for a 5-year period with the objective of promoting cities that provide core infrastructure and give a decent quality life to its citizens. Under the SCM, all 100 cities have incorporated Special Purpose Vehicles (SPVs), City Level Advisory Forums (CLAFs) and appointed Project Management Consultants (PMCs).

5.3 Challenges facing India's Infrastructure

Infrastructure—defined here as transport, power, telecommunications, and water supply and sanitation—is essential for development. It is an essential input into the production of goods and services and raises productivity. It powers factories and businesses and enables firms to trade. It encourages innovation and generates new economic opportunities and jobs as firms interact and discover new products, processes, and markets. Efficient infrastructure lowers distribution costs and boosts living standards by making goods and services more affordable. One of infrastructure's most dramatic benefits is on the poor, allowing access to better health and educational services, improving living conditions, and fostering greater social and economic mobility. And decisions on infrastructure development—including the type of infrastructure and technology—have significant implications for economic sustainability, as climate change, pollution, and other environmental factors present new challenges.

India spends 5% of its GDP on infrastructure development compared to China's 9%. China, with its high economic growth rates and high saving rates, was able to allocate much larger resources for investment in general. The growing international

experience in PPP in the supply of infrastructure services has also influenced the strategic shift to a greater role for the private sector in infrastructure.

India needs to spend 7-8% of its GDP on infrastructure annually. However India has been able to spend only about US$ 100-110 billion annually on infrastructure, leaving a deficit of around US$ 90 billion per annum. Given the fiscal constraints that leaves less room for expanding public investment at the scale required, there is an urgent need to accelerate the flow of private capital into infrastructure.

The infrastructure sector in India is faced with many bottlenecks at all stages of development, from project approval to construction to contract implementation to management. Most of the infrastructure projects in India suffer from delays in completion due to an inadequate regulatory framework and inefficiency in the approval process. Delay in execution not only lead to shortfalls in achieving the target but widens the availability gaps. Lack of proper dispute resolution mechanisms and lengthy litigation is another bottleneck in the development of Infrastructure projects. Infrastructure projects require an efficient process of land acquisition to be in place with adequate checks and balances.

Improvement in rural infrastructure is crucial for broad based inclusive growth of the economy and for bridging the rural-urban divide. From a macroeconomic perspective, a high level of investment in the infrastructure sector is essential for the overall revival of investment climate which may finally lead to sustainable growth in an economy.

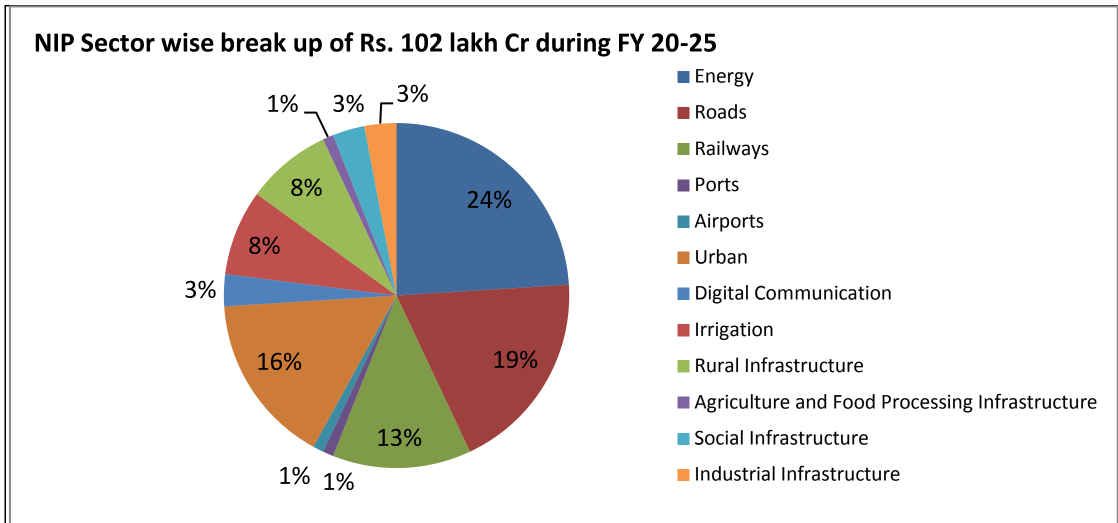
5.4 National Infrastructure Pipeline to fund Infrastructure projects

Hon'ble Prime Minister in his Independence Day-2019 speech highlighted that Rs.100 lakh crore would be invested on infrastructure over the next five years including social and economic infrastructure projects. To achieve this objective, a Task Force was constituted to draw up the National Infrastructure Pipeline (NIP) for each of the years from FY 2019-20 to FY 2024-25 with the approval of the Finance Minister.

To achieve the GDP of $5 trillion by 2024-25, India needs to spend about $1.4 trillion (Rs. 100 lakh crore) over these years on infrastructure as per "Report of the Task Force on National Infrastructure Pipeline for 2019-2025" released on 31 December 2019 (PIB (2019, December 31)). In the past decade (FY 2008-17), India invested about $1.1 trillion on infrastructure. The challenge is to step-up annual infrastructure investment so that lack of infrastructure does not become a binding constraint on the growth of the Indian economy. The Union Finance Minister Smt. Nirmala Sitharaman made at a Press Conference on 31 December 2019 indicated that Government will examine the recommendations of the Task Force and take action early.

During the fiscals 2020 to 2025, sectors such as Energy (24%), Roads (19%), Urban (16%), and Railways (13%) would amount to around 70% of the projected capital expenditure in infrastructure in India as shown in the Figure 14.

Figure 14: National Infrastructure Pipeline Expenditure- Sector wise Summary 2024-25



Source: NIP Task force report, DEA, Ministry of Finance

For faster growth to meet the target of $5 trillion economy by 2025, more supply-side reforms are needed as per the report of the task force. Creating new and upgrading existing infrastructure will be key to raising India's competitiveness and achieving this target. It will specially be critical for the success of 'Make in India' program as manufacturing competitiveness critically depends on infrastructure. The supply additions through infrastructure development boost short-term as well as the potential rate of GDP growth. Infrastructure creation is also labour absorbing, which boosts employment and income generation in the economy and further spurs domestic demand. Improved infrastructure capacities also create efficiency gains through improved logistics and networks, which would improve the competitiveness of the economy. This can help kick in a virtuous cycle of higher investments, growth and employment generation in the economy (National Infrastructure Pipeline Task Force GoI, 2019).

5.5 Infrastructure deficit

India's large investment deficit is well known. The investment rate has fallen by about six percentage points since the highs of 2011-12. The Asian Development bank (ADB) estimates that over the next five years the gap between current and needed investment levels will be about 4 percent of GDP ($ 112 billion) annually. As per ADB report "Meeting Asia's Infrastructure Needs" Investment needs under low growth scenario is 9% of GDP and high growth scenario is 8.5% of GDP (Table 8). The low (high) growth scenario used is one percentage point lower (higher) than the baseline case for each economy and each year. One percentage point difference in GDP growth can be substantial as most forecasted growth rates range from 2% to 7% (ADB, 2017).

Table 8: Climate-adjusted Infrastructure Investment Needs 2016–2030

Climate-adjusted Infrastructure Investment Needs under Low and High GDP Growth Scenarios, 2016–2030 ($billion in 2015 prices)								
Region	Low Growth Scenario				High Growth Scenario			
	Projected Average GDP Growth	Infrastructure Needs	Average	% of GDP	Projected Average GDP Growth	Infrastructure Needs	Average	% of GDP
Central Asia	2.1	526	35	7.9	4.1	605	40	7.6
East Asia	4.1	14,807	987	5.3	6.1	17,389	1,159	5.2
PRC	4.6	14,097	940	5.9	6.6	16,504	1,100	5.7
South Asia	5.5	5,930	395	9.0	7.5	6,777	452	8.5
India	**5.8**	**4,811**	**321**	**9.0**	**7.8**	**5,504**	**367**	**8.5**
Southeast Asia	4.1	2,951	197	5.9	6.1	3,355	224	5.5
Indonesia	4.5	1,158	77	6.3	6.5	1,304	87	5.8
The Pacific	2.1	43	2.9	9.3	4.1	49	3.3	8.8
Asia and the Pacific	4.3	24,257	1,617	6.0	6.3	28,175	1,878	5.8

Source: Asian Development Bank report, 2017

5.6 Public Private Partnerships

An enabling environment that delivers well-prepared, viable proposals for private investment is critical for PPPs. PPPs are an important modality for attracting private investment in infrastructure. However, to meet their potential, they need to be structured within a regulatory and institutional environment conducive to private

investment and better project preparation capabilities that generate a robust pipeline of bankable PPP projects.

Private investment in infrastructure has come mainly in the form of PPPs. More than a third of the infrastructure investment in India in the past decade has come from the private sector. PPPs help in addressing the infrastructure gap as well as improving efficiency in infrastructure service delivery. 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 as well as the associated investments. Indian private participation in infrastructure program supports a number of PPP models including management contracts, Build Operate-Transfer (BOT) contracts, Design-Build-Finance-Operate-Transfer contracts, Rehabilitate - Operate - Transfer, Hybrid Annuity Model, and Toll-Operate-Transfer model. Under the BOT model, there are two variants – BOT (Toll) and BOT (Annuity) depending on who bears the traffic risk. In the case of BOT (Toll), the traffic risk is borne by the PPP concessionaire while in the case of BOT (Annuity), it is borne by the Government (Public Authority).

5.7 Role of private sector in Infrastructure development

There is large potential for attracting greater private participation in infrastructure. Private investors benefit from infrastructure investment as it is a separate asset class, providing benefits through portfolio diversification. These stem from the economic characteristics of infrastructure, which often include high entry barriers, economies of scale (leading to high fixed and low variable costs), inelastic demand for services, high operating margins, and long maturities (for example, 25-year concessions or 99-year leases). The value proposition of these investments includes attractive returns,

low sensitivity to swings in the broader economy (manifested through low correlation of returns with other asset classes), and stable and predictable long term cash flows.

However, global experience has shown that for governments to substantially and sustainably catalyze private investment, an enabling environment that properly regulates PPPs to offer optimal value for money (VfM) solutions is a prerequisite. This in turn requires regulatory frameworks and institutions conducive to private investment—those governing procurement, design, delivery, and management of projects. It also requires financing and risk management instruments, including viability gap funds, to support project finance needs.

A limited pipeline of bankable projects is the proximate factor inhibiting greater private investment in infrastructure. For example, a country's development strategy may include creating a transport and economic corridor. Based on this goal, a set of projects can be identified—such as specific highways, railway corridors, and power generation and transmission lines—that require development or expansion. To become bankable, the projects should be formulated based on appropriate processes and due diligence from the prefeasibility study stage onward—including economic and financial analysis of project costs and benefits, project structuring (for example, debt and equity requirements), specification of the procurement modality to be used (for example, build-operate-transfer [BOT] or build-own-operate transfer), detailed project report preparation, environmental clearances, and approvals for land acquisition, among others.

5.8 Need for regulatory and institutional framework

Developing a robust pipeline of bankable projects requires a regulatory and institutional framework that (i) specifies the types of procurement contract; (ii)

ensures project identification and structuring appropriate for the specified procurement; (iii) includes a dispute resolution mechanism; (iv) contains streamlined processes for environmental and other regulatory permits for construction and operation; (v) defines costs and service levels; (vi) has defined bid parameters (for example, minimum viability gap requirements provided by the government); and (vii) has an independent tariff-setting authority. India strengthened its policy framework by issuing a PPP toolkit, guidance papers, and enhanced selection procedures.

While PPPs hold much promise, governments and policy makers should also be aware of the risks and potential liabilities. By nature, infrastructure projects carry a wide variety of risks—including project performance and completion risks, fuel and input risks, market risk, payment risk, financial risk, and environment risk, among others. While the private sector can best handle some, others should be passed on to government, particularly when outside private sector control. A well-designed regulatory and institutional framework allocates risk to where it can be managed best.

5.9 Infrastructure financing

Private financing and innovative instruments are important where the private sector carries the majority of the risk and undertakes the bulk of investment. These are mostly concession-type PPP arrangements. In these cases, more complex financing instruments such as corporate and project bonds, mezzanine instruments, securitized and asset backed instruments are required. Servicing these instruments comes from user fees, which require appropriate regulatory arrangements for setting tariffs and government viability grant support, when required.

Private infrastructure finance can be broadly divided into project and corporate finance. Project finance—otherwise known as limited recourse financing—utilizes an SPV to raise funds for acquiring or constructing an infrastructure asset. Once operational, the cash flows generated by the project SPV are used to pay for its costs. In corporate finance, projects are undertaken by companies themselves and funded through their own balance sheets. While corporate finance is more flexible and less complicated than project finance, companies can only take on as much debt as their equity allows. Moreover, large projects may cause excessive balance sheet exposure. Thus corporate finance is commonly used in relatively smaller infrastructure projects. Both corporate and project finance rely on a combination of debt and equity. Equity investors need a high level of expertise to assess the bankability of a project, and typically include construction companies or governments. In some cases, equity may be directly provided by insurance companies or private equity funds.

With the aim of boosting investment in infrastructure, National Investment and Infrastructure Fund (NIIF) has been created by the government with a capital of approximately Rs. 400 billion to provide investment opportunities to commercially viable projects. In addition, a Credit Enhancement Fund for infrastructure projects for increasing the credit rating of bonds floated by infrastructure companies is going to be launched in the country. A new Credit Rating System for infrastructure projects, based on Expected Loss approach, has also been launched which seeks to provide additional risk assessment mechanism for informed decision making by long-term investors. Further, measures like infrastructure investment trusts and Real Estate Investment Trusts have been formulated to pool investment in infrastructure.

One of the challenges facing this sector is to devise a comprehensive resolution/ settlement option for projects which are either stuck-up mid-way or wherein the

arbitral disputes/ claims have not been settled. The need is to establish an institutional mechanism to deal with time bound resolution of disputes in infrastructure sectors. Further, private developers have faced issues of leveraged balance sheets and aggressive bidding making it difficult for them to mobilize resources for completion of projects. Accordingly, Government has adopted the Hybrid Annuity Mode of PPP to encourage private participation in infrastructure projects. 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. The HAM model is considerably de-risked for the private concessionaires. In order to discourage aggressive bidding under HAM model, there is a provision of Additional Performance Security which will be applicable in case the Bid Project Cost of the Lowest Bidder is lower by more than 10 per cent with respect to the estimated project Cost.

As per estimates, India's infrastructure investment for fiscals 2018 and 2019 are Rs 10.2 lakh crore and Rs 10 lakh crore, respectively. During this period, infrastructure investment was predominantly made by the public sector (Centre and state governments, with a share of 65%), while the share of private sector was 35%. The Centre (39%) and states (39%) are expected to have equal share of the capital expenditure to be undertaken in the infrastructure sector under NIP, followed by the private sector (22%) (National Infrastructure Pipeline Task Force GoI, 2019).

According to Budget 2020-21 speech, Government's commitment for investment in infrastructure was reiterated when Rs. 103 lakh crore National Infrastructure Pipeline projects were announced. About Rs. 22,000 crore has already been provided, as support to Infrastructure Pipeline. This would cater for equity support to Infrastructure Finance Companies such as IIFCL and a subsidiary of NIIF. They would leverage it, as permissible, to create financing pipeline of more than Rs. 1,00,000 crore. This

would create a major source of long term debt for infrastructure projects and fulfil a long awaited requirement.

5.10 How to fund Infrastructure projects

For economies with less developed banking systems, financial systems will likely deepen as economies grow. However, the inherently short-term nature of deposits constrains banks from offering loans with the significantly longer maturities required. In addition, Basel III regulations introduced in the wake of the global financial crisis will increase the capital buffers banks must hold and require banks to better manage asset-liability mismatch risk. Along with other prudential regulations, this has significantly reduced banks' ability to provide long-term project finance.

Country need to develop bond markets to raise additional capital. Banks and bonds play a complementary role, as they use different methodologies when monitoring borrowers. While bank financing is crucial in the initial green field stage of a project, bonds can be important once projects are constructed and cash flows start (when project completion risks no longer exist). Thus, post completion, fixed-rate bond finance can 'take-out' bank finance, allowing banks to recycle capital for new green field projects. Accordingly, there is much synergy between local capital market development and an efficient local banking industry.

Expanding private finance by the required level is no doubt a major challenge. In particular, the public sector must consider innovative means of generating income for infrastructure investment, including ramping up land value capture as an alternative means of generating finance, and charging more market-based user fees to bolster the financial condition of public utilities. Equally important, the public sector needs to establish a regulatory and institutional framework that encourages greater private

participation in infrastructure—including creating bankable public–private partnerships— giving the best value to taxpayers and deepening capital markets that attract long-term private sourced infrastructure finance.

The public sector has dominant role in infrastructure and it must strengthen its capacity to plan and allocate investments to the right sectors and projects (including appropriate funding for maintenance), while getting projects done on time and on budget. This is vital. Indeed, high quality public sector planning and project design will also help attract private investment by expanding the pipeline of "bankable" projects.

5.11 Way forward

In a fast moving world to maintain growth momentum, India has to develop its industry and infrastructure. As an emerging economy, the scope for Industry 4.0 and Next generation infrastructure are enormous. To experience the potential of the perfect blend of Industry 4.0 and next generation infrastructure, it is necessary to clear the decks which are obstructing the way forward. 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. For a smooth and fast travelling, India needs adequate and timely investment in quality infrastructure.

Prime Minister, in his Independence Day speech 2019, had highlighted that Rs. 100 lakh crore would be invested on infrastructure over the next 5 years. As a follow up measure, the National Infrastructure Pipeline was launched on 31st December 2019 of Rs. 103 lakh crore. It consists of more than 6500 projects across sectors and are classified as per their size and stage of development. These new projects will include

housing, safe drinking water, access to clean and affordable energy, healthcare for all, world-class educational institutes, modern railway stations, airports, bus terminals, metro and railway transportation, logistics and warehousing, irrigation projects, etc. The National Infrastructure Pipeline envisions improving the ease of living for each individual citizen in the country. It will bring generic and sectoral reforms in development, operation and maintenance of these infrastructure projects. A huge employment opportunity exists for India's youth in construction, operation and maintenance of infrastructure. National Skill Development Agency will give special thrust to infrastructure-focused skill development opportunities.

In order to create a five trillion dollar economy by 2024, India needs a robust and resilient infrastructure. Public investment cannot fund the entire infrastructure investment requirements of the country. Further, private players are usually eager to bring their capital into developed Indian states as compared to less developed states. Therefore, the real challenge lies in bringing adequate private investment across the country with the collaboration of public sector. Along with physical infrastructure; provision of social infrastructure is also equally important as these two would determine where India will be placed in the world by 2024.

Chapter-6

Agriculture sector, reforms and challenges

"Mahatma Gandhi said, "The soul of India lives in its villages". This year even as we are marking the 150th birth anniversary of Mahatma Gandhi, I submit that our Government keeps Antyodaya at the core of all its efforts. At the Centre of everything that we do, we keep "gaon, garib, aur kisan".....

Smt. Nirmala Sitharaman, Union Minister of Finance while presenting the Budget speech on 05 July 2019

6.1 Significance of Agriculture sector

Agriculture is the main source of India's national income and pivotal for Rural development, hence there is a need for leaving no stone unturned to improve the condition of the farming community. India ranks second worldwide in farm outputs. Agriculture sector supports the industry by providing raw materials and necessary inputs for its production. On the other hand, it consumes fertilizers, pesticides produced by the industries for its own production. So there exists an inter-dependence between agriculture and industry which is essential for the socio-economic development of the country. Since ancient times, agriculture has been the pioneering force in shaping up any economy. For a developing country like India, agriculture is immensely important. Even a small tweak in the agriculture Sector, whether it is positive or negative, impacts the economy to a great extent.

Agriculture and allied sectors are critical in terms of employment and livelihoods for the small and marginal farmers, who dominate the agriculture ecosystem in lndia. 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 decline in the size of landholdings in agriculture, lndia has to focus on resource efficiency in smallholder farming to meet the SDG targets and also to attain sustainability in agriculture. A combination of resource efficient methods, dynamic cropping patterns, farming that is responsive to climate change and intensive use of lCTs should be the backbone of smallholder farming in lndia. For a safe and food secure future the agriculture landscape has to undergo tremendous transformation and shift from the philosophy of 'green revolution led' productivity to 'green methods' led sustainability in lndian agriculture.

The Central Government of lndia has flagged ten major theme points to target them through Budget 2019-20. Among these ten theme points, self-sufficiency and export of food-grains, pulses, oilseeds, fruits and vegetables etc. is one of the important theme points which will play a crucial role to achieve US$ 5 trillion lndian economy in the next 5 years. Agriculture remains the pre-dominant occupation in lndia for vast sections of the population.

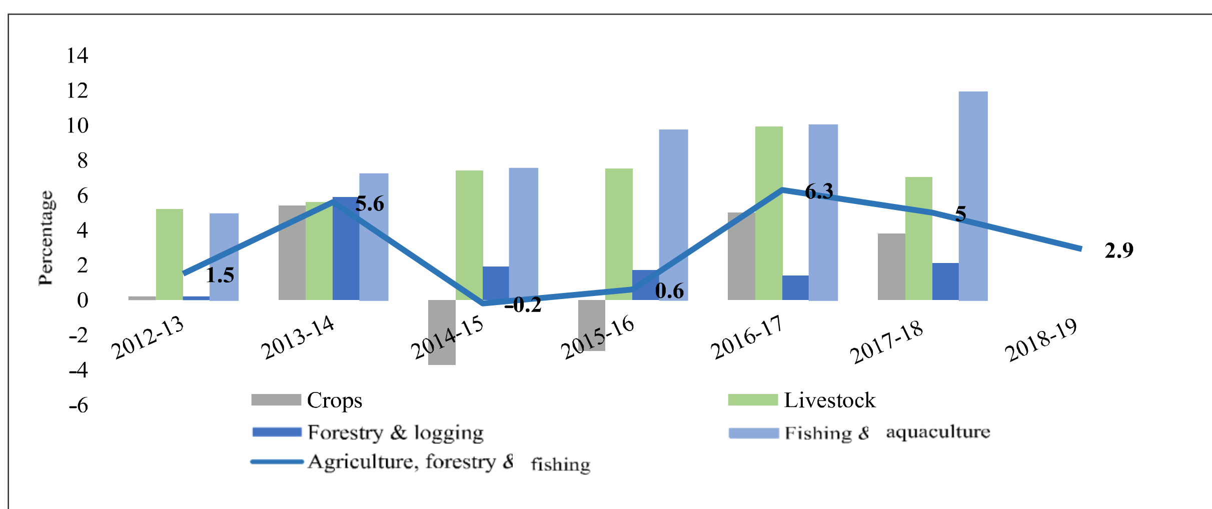
6.2 Share of Agriculture in India's GDP

Agriculture employed 50% of the Indian workforce and contributed nearly 14% to country's GVA. Despite the volatility, in 2017-18, total food grain production in India was estimated at 275 million tonnes (MT). India is the largest producer of pulses in the world accounting for the 25 percent of global production. India's annual milk production in 2017-18 was 165 MT, making India the largest producer of milk, jute and pulses. India is second largest producer of rice, wheat, groundnuts, cotton and sugarcane. It is also the second largest fruit and vegetable producer, accounting for

10.9 percent and 8.6 percent of the world fruit and vegetable production respectively. Share of Agriculture sector in total exports of the country is 11.76 percent for the year 2018-19.

Agriculture sector in India typically goes through cyclical movement in terms of its growth. The same is evident from Figure 15.

Figure 15: Growth rate of GVA in Agriculture and allied sectors (2011-12 prices)



Source: CSO, Ministry of statistics

As per first Advance Estimate (AE) of national income released by NSO, GVA at Basic prices for 2019-20 from Agriculture, forestry and Fishing sector is estimated at Rs. 1,907,605 Crore at 2011-12 Basic Prices and estimated to grow by 2.8% over previous year. The crops including fruits and vegetables account for about 56 percent, the livestock products 30 percent and forestry & fisheries 14 percent share of GVA in total GVA of ‘Agriculture, Forestry and Fishing’ Sector(PIB, January 07,2020).

India today is not only self-sufficient in respect of demand for food, but is also a net exporter of agri-products occupying seventh position globally. However, there remain some chinks in the production armoury, when evaluated against nutritional security that is so important from the perspective of harvesting the demographic dividend of

the country. The country faces deficit of pulses & oilseeds. The availability of fruits & vegetables and milk & meat & fish has increased, thanks to production gains over the decades, but affordability to a vast majority, including large number of farmers too, remains a question mark.

6.3 Key Challenges facing the Indian Agriculture Sector

There has been decline in contribution of agriculture sector in GDP along the years. Despite the fall in contribution in GDP, agriculture sector continues to be the major source of employment in the country. Some key challenges are highlighted below:-

a) The primary challenge for agriculture sector is to provide food to 1.3 billion population in India.
b) Inconsistency in growth rate of agriculture has impacted farmer's income and creditworthiness adversely.
c) Over the years, several new challenges have emerged before the sector, especially declining in factor productivity, increase in cost of cultivation and decrease in the net returns per unit area.

6.3.1 Marginal land holding

Land, labour and capital have for long been recognised as the principal factors of production. Indian agriculture is dominated by small and marginal farmers, who account for more than 86 per cent of the total number of landholdings, that counted to 11.88 crore as per 2011 census. Further, of the 86 per cent of the small and marginal land holdings, the majority are marginal (equal to less than 1 ha. in size). The small size of land holdings is a challenge by itself, which is rendered more complex by its fragmentation. While land division is linked to law of inheritance, fragmentation is

associated with the practice of dividing and sharing every piece of land among the inheritors. It is important to note, that land size has a bearing on production, input costs and final income. The income from operational efficiency is influenced by the size of land holding. It is difficult operationally to individually harvest the scales of economy at both production and post-production stages, and this adversely impacts the costs of production and transaction. The size of land held matters in earning a farm income. Similarly, net investment in productive assets per agricultural household increases with increase in land size. The capacity of a farmer to invest in productive assets influences the farm income and viability of farming.

While the farm in India is superior in terms of production performance, it is weak in terms of generating adequate income and sustaining livelihood. Tiny holdings below 0.8 ha do not generate enough income to keep a farm family out of poverty despite high productivity. Nearly three-fourths of small farmers in India fall under poverty if they do not get income from non-farm sources. Serious steps should be taken to create employment avenues for smallholders outside agriculture, but within the countryside so that the workforce in small farms gets work and income from non-farm activities without leaving the farms. This seems to be the only way to achieve higher productivity and to sustain agricultural growth together with augmenting the income of smallholders for improved livelihood.

6.3.2 Elephantine size engaged in Agriculture

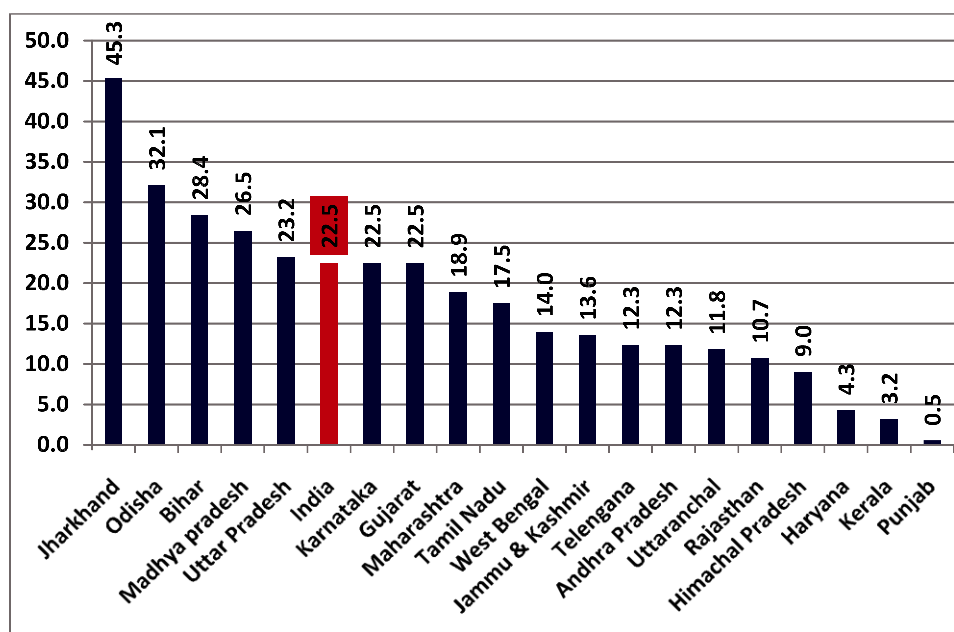
No nation can afford to compromise with its farming and farmers. And much less India, wherein the absolute number of households engaged in agriculture in 2011 (119 million) outpaced those in 1951 (70 million). Then, there are the landless agricultural labour who numbered 144.30 million in 2011 as against 27.30 million in 1951. The

welfare of this elephantine size of India's population is area of prime concern for addressing robust agricultural growth.

6.3.3 Need for augmenting farmer's income

As per NITI Aayog policy paper, the past strategy for development of the Agriculture sector in India has focused primarily on raising Agriculture output and food security (NITI Aayog, March 2017).

Figure 16: Farm Households below poverty line 2011-12(In Percentage)



Source: NITI Aayog report and NSSO

During the last half a century, since the adoption of green revolution, India's food production multiplied 3.7 times while population multiplied by 2.55 times. The net result has been a 45 percent increase in per person food production which has made India net food exporting country. The strategy did not explicitly recognize the need to raise farmer's income and did not mention any direct measure to promote farmer's welfare which resulted in increased poverty and low income of farmers. The proportion of farm household suffering from poverty is quite high as per NSSO

survey (Figure 16). The country also witnessed a sharp increase in the number of farmers suicides during 1995 to 2004. The low and highly fluctuating farm income is causing detrimental effect on the interest in farming and farm investments, and is also forcing more and more cultivators, particularly younger age group, to leave farming. This can cause serious adverse effect on the future of agriculture in the country (NITI Aayog, March 2017).

6.3.4 Doubling the farmer's income(DFI)

The average income of an agricultural household during July 2012 to June 2013 was as low as Rs.6,426, as against its average monthly consumption expenditure of Rs.6,223. As many as 22.50 per cent of the farmers live below official poverty line. The markets do not assure the farmer of remunerative returns on his produce. Farmers own land. Land is a powerful asset. And, that such an asset owning class of citizens has remained poor is a paradox. They face the twin vulnerabilities of risks & uncertainties of production environment and unpredictability of market forces. Low and fluctuating incomes are a natural corollary of a farmer under such debilitating circumstances. While cultivation is boundarised by the land, market need not have such bounds. Agriculture is the largest enterprise in the country. An enterprise can survive only if it can grow consistently. And, growth is incumbent upon savings & investment, both of which are a function of positive net returns from the enterprise. The net returns determine the level of income of an entrepreneur, farmer in this case.

Farmer's welfare can be said to have been achieved, when a farm-family is able to generate adequate, stable and sustainable incomes from farm and non-farm enterprises, which is not only sufficient to meet the multiple needs associated with human dignity, but is also left with savings that can be shipped back into farming as

investments. The Prime Minister of India has, in sharing a new vision for the farmers of the country, laid out a challenge, to double farmers' income by the time the country celebrates its 75th year of Independence in 2022. This challenge, though on the face of it, targets primarily the farmers, it in reality touches all Indians. For everyone, including the consumers, are affected by the status of agriculture and financial health of the farmers. The target is achievable with a good strategy, well-designed programmes, adequate resources and efficient governance framework for implementation.

6.3.5 Other challenges

It is an irony, that the very same farmer is now caught in the vortex of more serious challenges. Some of which are highlighted below:-

a) Large tracts of arable land have turned problem soils, becoming acidic, alkaline & saline physico-chemically. Another primary factor of production, namely, water is also under stress.

b) Climate change is beginning to challenge the farmer's ability to adopt coping and adaptation measures that are warranted.

c) Technology fatigue is manifesting in the form of yield plateaus. India's yield averages for most crops at global level do not compare favourably. The costs of cultivation are rising.

d) The magnitude of food loss and food waste is alarming.

e) In short, sustainability of agricultural growth faces serious doubt, and agrarian challenge even in the midst of surpluses has emerged as a core concern.

This explains the rationale behind adopting income enhancement approach to farmers' welfare. It is hoped, that the answer to agrarian challenges and realisation of the aim of farmers' welfare lies in higher and steady incomes.

6.4 Sources and strategy for growth of farmer's income

The Inter-Ministerial Committee on Doubling Farmers' Income (DFI) was constituted in April 2016 by the Government which has submitted its 14 volume report in September 2018. The DFI recognizes agriculture as a value led enterprise and suggests empowering farmers with "improved market linkages" and enabling "self-sustainable models" as the basis for continued productivity-production and income growth for farmers. The committee has identified seven major sources of increase in farmer's income by drawing mainly form the past experience and trends. The same are highlighted in succeeding paragraphs (DFI Committee Report, August 2017).

6.4.1 Improvement in Crop Productivity

There are two sources to Increase in agricultural output viz. area and productivity. Due to rising demand for land in non agricultural uses, further expansion in area under cultivation is not feasible. Therefore agricultural output has to be increased through improvement in productivity per unit of land. Productivity of most of the crops in the country is low and there is considerable scope to raise it. Even within country there is large variation in yield across states. Variation in productivity at same level of irrigation and lower yield in India compared to the world average are due to poor level or low adoption of improved technology. Enhancing access to irrigation and technological advancement are the most potent instruments to raise agricultural productivity and production in the country.

6.4.2 Improvement in Livestock Productivity

Livestock constitutes 30% of total income from agriculture sector. This sector has experienced 4.5% growth rate from 2000-01 to 2013-14. Maintaining the same growth rate will raise the farm income by 10.8% in seven years.

6.4.3 Improvement in total factor productivity

The improvement in Total factor productivity (TFP) is an important source of output growth which directly contributes to cost saving and thus increase in income. TFP accounts for effects total output growth relative to growth in total inputs used in production.TFP growth represents effect of technological change, skill, infrastructure, etc. which are not counted in the set of production inputs. Agriculture sector has witnessed 2.62 percent annual growth in total factor productivity during 2004 to 2012, which implies that farmer’s income will also increase at the same rate. Increase in TFP rate at same pace will lead to 26.3% increase in farmer’s income by the year 2022-23.

6.4.4 Diversification towards high value crops

Diversification towards high value crops (HVCs) offers a great scope to improve farmer’s income. The staple crops (cereals, pulses, oilseeds) occupy 77 percent of the total or gross cropped area (GCA) but contribute only 41 percent of total output of the crop sector. Almost same value of output was contributed by HVCs (fruits, vegetables, fibre, condiments & spices and sugarcane), which just occupy 19 percent of gross cropped area. With this differential in productivity, shifting one hectare area from staple crops to commercial HVC has the potential to increase gross returns over

Rs. 1 Lakh per hectare. Diversification has the potential to raise output of crop sector by close to 1 percent each year.

6.4.5 Increase in crop intensity

Despite so much pressure on the land, it is not used intensively. More than 60 percent agricultural land in the country remains unused for half of the productive period. India has two crop growing seasons namely 'Kharif' and 'Rabi' which makes it possible to cultivate two crops a year on the same piece of land. With availability of irrigation and new technologies it has become possible to raise short duration crops after the main kharif and after the main rabi season. Statistics show that the second crop is taken only on 38.9 percent of net sown area. Effective use of agricultural machinery helps to increase productivity and production of farm output along with timely farm operations for quick rotation of crops on the same land. By raising a second crop or multi-crops from the same land, there is improvement in the cropping intensity and making agricultural land commercially more viable (Economic Survey 2019-20, Ministry of Finance, 2020). Lack of access to water to meet crop requirement is said to be the main reason for low crop intensity. Irrigation is not available throughout the year. With the expansion in irrigation by implementation of various government schemes like "Pradhan mantra Krishi Sinchai Yojana" and increase in crop intensity at the same rate the farmer's income can be raised by 3.4% in 7 years.

6.4.6 Improving terms of trade for farmers

Some evidence of the effect of online marketing by farmers using Unified Market platform created by Rashtriya e Market Services Private Limited (ReMS) (a Joint Venture of government of Karnataka and NCDEX) shows big benefit for farmers. After introduction of online trading and UMP modal prices in mandis in Karnataka

witnessed much higher increase than the increase in wholesale prices of the same commodity in the country. The Karnataka experience shows that small reform in the system of marketing can make a big difference to the prices received by farmers. Two changes, namely, online trading and opening market to traders outside the mandi, have made a significant difference.

6.4.7 Shifting cultivators to non farm and subsidiary activities

Income of farmers can be improved substantially by shifting workforce away from agriculture, which implies that the available farm income will be distributed among 13.4% less farmers. In fact some farmers have started moving away from the agriculture sector and many are looking for suitable opportunities to leave farming. The government's various initiatives on skill development can play a big role in improving skills of farming community, which can fetch them better employment opportunities in non-farm sectors. To transform the rural economy, greater emphasis should be given to allied sectors with a major focus on dairy, poultry, fisheries and rearing of small ruminants.

6.4.8. Strategy for improving Farmer's income

The sources of growth in output and income can be put in four broad categories:-

a) Development Initiatives including Infrastructure
b) Technology
c) Policies
d) Institutional mechanisms

6.5 Agriculture Development initiatives by Government of India.

The development paradigm of government of India has put unprecedented focus on agriculture. Numerous initiatives to improve productivity, safeguard farmers and augment their incomes and improve their overall well-being have been taken. The government has been reorienting the agriculture sector by focusing on income-centeredness which goes beyond achieving merely the targeted production. The income approach focuses on achieving high productivity, reducing CoC, and renumerating price on the produce, with a view to earn higher profits from farming. Below mentioned key development initiatives of the central government are aiming to raise output and reduce cost :-

6.5.1 Pradhan Mantri Krishi Sinchai Yojana(PMKSY)

Focus on water use efficiency at farm level through precision or micro Irrigation (drip and sprinkler irrigation) has become a farm imperative to ensure a sustainable agricultural practice. Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) is amalgamation of various schemes viz. Accelerated Irrigation Benefits Programme (AIBP), Har Khet Ko Pani (HKKP) including Command Area Development (CAD), Surface Minor Irrigation (SMI) and Repair, Renovation and Restoration (RRR) of Water Bodies, Per Drop More Crop (PDMC) and Watershed Development (WD). The major objective of PMKSY is to achieve convergence of investments in irrigation at the field level, expand cultivable area under assured irrigation, improve on-farm water use efficiency to reduce wastage of water, enhance the adoption of precision-irrigation and other water saving technologies (Per Drop More Crop), enhance recharge of aquifers and introduce sustainable water conservation practices by exploring the

feasibility of reusing treated municipal waste water for peri-urban agriculture and attract greater private investment in precision irrigation system.

PMKSY has been approved for implementation across the country with an outlay of Rs.50,000 crore during 2015-2016 to 2019-2020 to ensure 'more crop per drop' which will cover 28.5 lakh hectare area under irrigation. PMKSY has made a great effort to bring in more area under irrigated agriculture (PIB (2018, December 12)).

6.5.2 Soil Health Card

The government has taken various steps to ensure that the farmer reaps good yields by focusing on strengthening sowing related activities. Soil Health Cards carry crop-specific recommendations for nutrients and fertilizers to help farmers improve their productivity. National Productivity Council (NPC) has done a study on 'Soil Testing Infrastructure for Faster Delivery of Soil Health Cards in India' and found that as a result of application of fertilizers as per recommendations of soil health card, there is a decrease in use of chemical fertilizers in the range of 8-10% and increase in yield of crops to the tune of 5-6%.

6.5.3 Parampragat Krishi Vikas Yojana (PKVY)

Indiscriminate use of chemical fertilizers in Agriculture is a cause for concern and has drawn the attention of the government because of its implications on environment, socio-economic and production fronts. In order to promote organic farming, the government has started the Paramparagat Krishi Vikas Yojana (PKVY), under which 2 lakh hectares has been made suitable for organic farming thereby benefitting 5 lakh farmers. PKVY is implemented with a view to promote organic farming in the country. This will improve soil health and organic matter content and increase net

income of the farmer so as to realize premium prices. Government of India has been promoting organic farming under two dedicated schemes namely Mission Organic Value Chain Development North Eastern Region (MOVCDNER) and Parampragat Krishi Vikas Yojana (PKVY) since 2015 through State Governments. Under these schemes, support has been provided for formation of farmer's clusters/ Farmer Producer Organisation; incentives to farmers for input procurement, value addition including post harvest infrastructure creation, packaging, branding, publicity, transportation, organic fairs etc. Organic Farming has also been supported under other schemes viz Rashtriya Krishi Vikas Yojana (RKVY) and Mission for Integrated Development of Horticulture (MIDH), Network Project on Organic Farming under ICAR (PIB (2018, March 21)).

6.5.4 Credit for Farmers

The yield based scheme namely Pradhan Mantri Fasal Bima Yojana (PMFBY) and a weather index based "Restructured Weather Based Crop Insurance Scheme (RWBCIS)" were introduced from Kharif 2016 with an aim to provide a simple and affordable crop insurance product to ensure comprehensive risk cover for crops of farmers against all non-preventable natural risks from pre-sowing to post-harvest, to provide adequate claim amount and timely settlement of claims. Insurers save premium in good seasons/years and pay high claims, if any in bad years from the savings made in the good years. Various measures namely, timelines for settlement of claims, leveraging of technology for assessment of yield by State Government agencies using smartphone/CCE Agri App, integration of all individual farmer data on National Crop Insurance Portal etc. have been taken under PMFBY. PMFBY is the biggest risk cover and safety net provided by the government to save farmers from being exploited at the hands of informal credit sources such as moneylenders. Under

the interest subvention scheme, short term crop loans upto 3 lakh with the interest rate of 7 percent per annum up to one year has been made available (PIB (2018, December 12)).

6.5.5 Pradhan Mantri Kisan Samman Nidhi Yojna

The PM-Kisan Yojana is an income support scheme for farmers. It is a 100% central sector scheme which will give farmers Rs. 6000/- per year in 3 equal instalments. From 01.04.2019, the scheme has been extended to cover all farmers, the total beneficiaries will be 14.5 crores. Since the launch of PM Kisan till jaunary 2020 about 8.12 crore farmer families have been benefitted and more than Rs. 48,937 crore has been released under the scheme.

6.5.5 Pradhan Mantri Kisan Pension Yojana(PM KPY)

PMKPY is a Rs. 10,000 Crore pension scheme for 5 crore farmers. Under this scheme, small and marginal farmers will get a minimum fixed pension of Rs. 3000 per month on attaining the age of 60 years. It will be a voluntary and contributory pension scheme with entry age of 18 to 40 years. The beneficiary would be required to contribute Rs. 100 per month at median entry age of 29 years

6.5.6 e-NAM and Agri-marketing

Access to both domestic and international markets for realizing appropriate income level is critical for farmers. National Agriculture Market (e-NAM) is envisaged as a pan-India electronic trading platform launched by Government of India on 14th April, 2016 with the objective of creating online transparent competitive price discovery system to facilitate farmers with remunerative prices for their produce. 585 wholesale regulated markets of 16 States and 02 Union Territories (UTs) have been integrated

with e-NAM platform. It is cutting down the middle men in agriculture trading to facilitate farmer get his due. It is an innovative market process to revolutionize agri-markets by ensuring real time better price discovery, bringing in transparency and competition to enable farmers to get improved remuneration for their produce, moving towards 'One Nation One Market'. The union government would actively work with state governments to allow the farmers to actualize the real price discovery benefits from e-NAM in a transparent manner. As on 30.06.2019, more than 1.64 crore farmers & more than 1.24 Lakhs traders have been registered on e-NAM platform. Further trade transactions having total volume of 2,58,76,016 MT with total value of Rs.71,069 crore, have been recorded on e-NAM platform till 30.06.2019 (PIB, July 09, 2019).

6.5.7 **Zero Budget Natural farming**.

The union budget 2019-20 emphasized on promotion of zero-budget farming to promote this form of farming as a low-cost, natural alternative to the existing practices of heavy and unbalanced use of chemical fertilizer and pesticides. Intercropping is a scientifically proven practice and has got several advantages and extends economic benefits for the farmers particularly under adverse weather conditions. Intercropping with leguminous crops is one of the components of Zero Budget Natural Farming (ZBNF) and it improves the crop productivity and soil fertility by way of fixing the atmospheric nitrogen. Further, the cowdung, urine based formulations and botanical extracts used in ZBNF help farmers in reducing the input cost (PIB (2019, July 23)).

6.5.8 Contract farming

With a view to integrate farmers with bulk purchasers including exporters, agro-industries etc. for better price realization through mitigation of market and price risks to the farmers and ensuring smooth agro raw material supply to the agro industries, Union Finance Minister in the budget for 2017-18 announced preparation of a "Model Contract Farming Act" and circulation of the same to the States for its adoption. Farmer's producer organizations (FPO's) have a major role in promoting Contract Farming and Services Contract. On behalf of famers they can enter into agreement with the sponsor. Contract farming, which in a way is a futures trade, helps the farmers to focus on their production for optimal yields, without the anxiety of post-harvest price situation. Contract farming can generate benefits emanating from the farmers coming together to run their operations of input and output management collectively, thereby harvesting the economy of higher scales, without diluting the status of their land ownership (PIB (2019, July 16)).

6.5.9 Annadata to become Urjadata

According to budget 2019-20, government would invest widely in agricultural infrastructure and will support private entrepreneurships in driving value-addition to farmer's produce from the field and for those from allied activities, like Bamboo and timber from the hedges and for generating renewable energy. High powered committee of Chief Ministers for 'Transformation of Indian Agriculture' has been constituted and two meetings of the committee have been held on 18 July 2019 and 16 August 2019 to deliberate and firm up their report. Annadata can also be Urjadata as per the last year budget speech of Finance Minister. The Pradhan Mantri Kisan Urja

Suraksha Utthan Mahabhiyan (PM-KUSUM) scheme removed farmer's dependence on diesel and kerosene and linked pump sets to solar energy.

Budget 2020-21 has proposed to expand the scheme to provide 20 lakh farmers for setting up stand-alone solar pumps and to help another 15 lakh farmers solarise their grid-connected pump sets. In addition, a scheme to enable farmers to set up solar power generation capacity on their fallow/barren lands and to sell it to the grid would be operationalized as per Budget 2020-21. India has an estimated capacity of 162 million MT of agri-warehousing, cold storage, reefer van facilities etc. NABARD will undertake an exercise to map and geo-tag them. In addition, Budget has proposed to create warehousing, in line with Warehouse Development and Regulatory Authority (WDRA) norms. The government will provide Viability Gap Funding for setting up such efficient warehouses at the block/taluk level. This can be achieved, where States can facilitate with land and are on a PPP mode. Food Corporation of India (FCI) and Central Warehousing Corporation (CWC) shall undertake such warehouse building on their land too.

6.6 Technology and innovations/ Agricultural research

There is greater and urgent need to strengthen the system of agricultural research and development. Today, the agricultural and allied sectors are facing new challenges like the reducing availability of quality water, nutrient deficiency in soils, climate change, farm energy availability, loss of biodiversity, emergence of new pests and diseases, rural-urban migration, besides globalization of agri-food markets and trade regulations and these need to be addressed during the years to come. In this context, the agenda of research and development needs to widen its scope from production enhancing technologies to those that mitigate sustainability concerns and promote

farmers income. The technologies which have been developed needs to be spread to all the farmers. They require strong extension for the adoption by the farmers. The emphasis should be on informing farmers of the opportunities these technologies offer, improving access to credit and creating an enabling policy environment.

6.7 Policies

Policies affect production, price realization and farmer's income in a large number of ways. Particular attention needs to be paid to various types of reforms needed in agriculture sector. The neglect of required reforms in agriculture sector has created wide disparity between agriculture sector and non agriculture sector. Opening up agriculture and removal of various restrictions on marketing, land lease and raising of forest species on farm land will enable farmers to receive higher prices for their produce and enhance economic activities both of which are part of farmer's income. There is a need to reorient governance to enhance farmer's incomes by placing their prosperity at the centre of the development agenda. The prime function of the government agencies is to create an eco-system for the larger acceptance for the reforms. This requires three things- information, intelligence and interaction. Right information gathered through the intelligent systems should be placed before stakeholders to make an informed decision rather than based on anecdotes. A paradigm shift is required to look agriculture differently to that what we have been looking so far.

6.8 Institutions

Indian agriculture is dominated by marginal and small farmers, who suffer serious disadvantage in terms of scale which can be overcome by organizing farmers under some institutional mechanism like the Farm Producers Organizations (FPOs). FPOs

are collectivization of producers, especially small and marginal farmers, to collectively address challenges of agriculture viz. improved access to investment, technology, inputs and markets. The number and network of FPOs is very small and it needs to be expanded to enable farmers to reduce transaction costs, access technology, raise bargaining power and integrate with value chains. Budget 2019-20 has a 5-year long-term target to form 10,000 FPOs to ensure economies of scale for farmers.

6.9 Way forward

Agriculture remains the mainstay of the Indian economy despite its shrinking share in the country's GDP which was 55.4% in 1950-51 to 17.4% in 2018-19. Similarly, rural non-farm sector coupled with farm sector have tremendous potential in ushering an overall positive economic scenario in the country. Hence there is a need to re-orient government policy interventions in rural and agriculture sector which aims at re-establishing an enabling atmosphere for not only to achieve the objective of augmenting farmer's income but also to expedite poverty reduction, job creation, skill up-gradation drives and to guarantee a long term double digit economic growth with social justice.

According to Budget 2020-21, the government is committed to the goal of doubling farmer's incomes by 2022. The government has provided energy sovereignty through KUSUM and input sovereignty through Paramparagat Krishi Vikas Yojana. Resilience for 6.11 crores farmers insured under PM Fasal Bima Yojana has been provided. Focus on cultivation of pulses, expansion of micro-irrigation through Krishi Sinchai Yojana, have raised the self-reliance of the country. Provision of any annual supplement of the income to the farmer, directly is done through PM-KISAN. Connectivity through PMGSY, financial inclusion have helped raise farm incomes.

For the sector comprising of Agriculture and allied activities, Irrigation and Rural Development an allocation of about Rs. 2.83 lakh crore has been made for the year 2020-21.

A farmer's income is a basket of earning from agriculture (including horticulture), allied activities like dairy, livestock, poultry, fishery etc. and ancillary activities like beekeeping etc. Apart from these farm incomes, he also earns from other activities like wage labour, off-farm activities etc. Earnings from agriculture constitute the principal source of income of a farmer. It is hoped, that the answer to agrarian challenges and realization of the aim of farmer's welfare lies in higher and steady incomes.

Vulnerability to nature and unpredictability of markets are the core threats to farmer's income, stability and welfare. Appropriate risk covers should be made available to the farmers at low premium rates covering crop and livestock insurance. All farmers need to be empowered with knowledge and technology support. Timely, relevant and applicable information can enable the farmer to take incisive decisions to counter the various uncontrolled variables and optimize on their resource use.

We have to adopt a production strategy characterized by from 'at any cost' to 'minimal cost', from 'any how approach' to 'sustainable approach' and from 'supply-push' to 'demand-pull' production system. Three pronged strategy focused on development initiatives, technology and policy reforms in agriculture is needed to augment farmer's income. All farmers need to be empowered with knowledge and technology support with outreach to all government schemes. Better price realization, efficient post harvest management, competitive value chains and adoption of allied activities are the prime factors attributing growth of income which can be achieved by

comprehensive reforms in market, land lease and raising of trees on private land. Agriculture being a state subject under the constitution, it is essential to mobilize states and Union Territories to own and achieve the goal of DFI set by Union government by efficient implementation of development initiatives, policies and innovative programmes.

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. Smallholder farming can be a lucrative livelihood opportunity with the application of appropriate technologies, especially adoption of integrated farming system and also adoption of natural, organic and Zero Budget Natural Farming (ZBNF). To transform the rural economy, greater emphasis should be given to allied sectors with a major focus on dairy, poultry' fisheries and rearing of small ruminants. The rationalisation of food subsidy and greater use of technology in food management will ensure food security for all in lndia.

Chapter-7

Concluding Remarks: Recommendations, Challenges and the Way ahead

उद्यमेन हि सिध्यन्ति कार्याणि न मनोरथैः ।

न हि सुप्तस्य सिंहस्य प्रविशन्ति मुखे मृगाः ॥

(अर्थात उद्यम से ही कार्य सफल होते हैं, ना कि मनोरथों से।

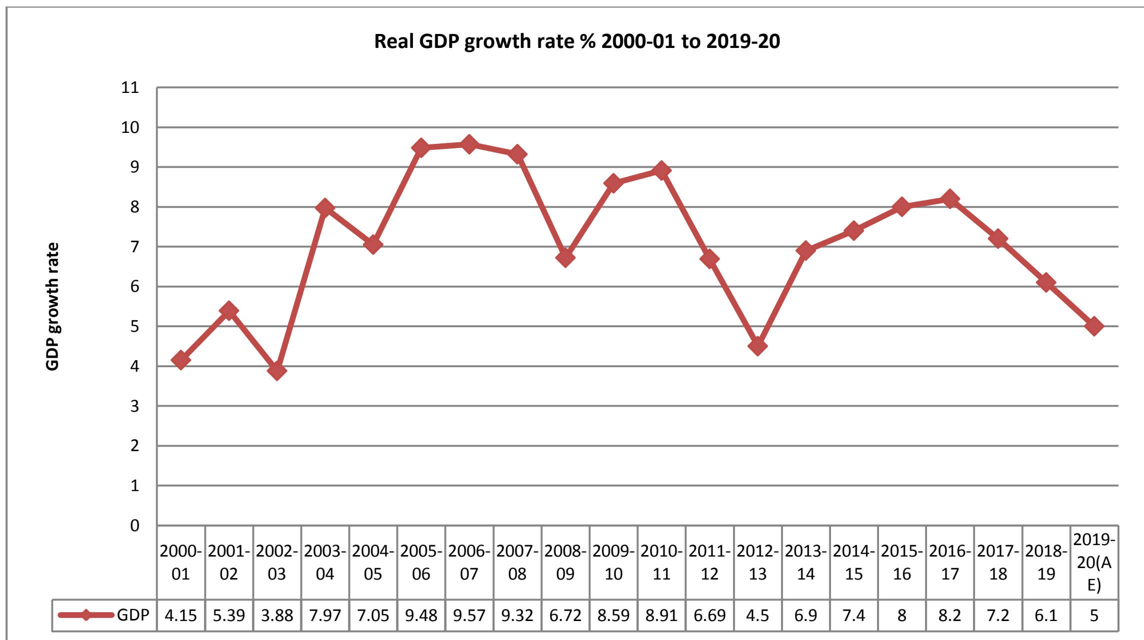
ठीक उसी प्रकार सोए हुए शेर के मुख में हिरण नहीं आते।)

7.1 Summary

Economy is a vast subject and involves various sectors, therefore the research work on "Challenges and Way ahead for India in achieving the target of Dollar 5 Trillion Economy by 2024-25" was primarily focused on the four key sectors specified in Research Objectives i.e. External Sector (including exports), Industry, Infrastructure and Agriculture Sector with emphasis on doubling the farmer's income due to time and resource constraints. The study is an attempt to compile useful information pertaining to the target of achieving of the $5 trillion economy by study of various secondary sources of information (Both national and international) and interviewing key stakeholders both in the government and private sector including experts working in this area.

The real GDP growth since year 2000-01 has been consolidated in Figure 17. The Gross Domestic Product (GDP) growth rate for 2013-14 has gone up following adoption of the new series with base year 2011-12. The rate of expansion was estimated at 4.7 per cent under the old series that had 2004-05 as base year.

Figure 17: Real GDP growth rate % 2000-01 to 2019-20



	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20(AE)
GDP	4.15	5.39	3.88	7.97	7.05	9.48	9.57	9.32	6.72	8.59	8.91	6.69	4.5	6.9	7.4	8	8.2	7.2	6.1	5

Source: Planning commission data and government website data.gov.in

According to Medium Term Fiscal Policy cum Fiscal Policy strategy statement of Budget 2020-21, it is expected that the nominal GDP for 2022-23 in absolute terms work out to be Rs. 2,85,54,285 crore. Hence the official estimates of Government regarding the size of GDP (in absolute terms) has been consolidated from 2019-20 to 2022-23 in Table 9 and converted to USD figures by taking the latest conversion rate of 1USD= Rs. 72.65. It clearly shows that the size of Indian Economy will be USD 3.93 Trillion by year 2022-23 with estimated nominal growth of 10%, 12.6% and 12.8% for the Year 2020-21, 2021-22 and 2022-23 respectively (Budget Document, 2020).

Table 9: Size of Indian Economy as per official estimates

Financial Year	Nominal Growth	GDP (In absolute terms)	GDP in USD (Calculated conv. Rate @ 1USD = Rs. 72.65 as on 21 February 2020)
2019-20	7.5%	Rs. 2,04,42,233 Crores	2.81 Trillion USD
2020-21	10%	Rs. 2,24,89,420 Crores	3.095 Trillion USD
2021-22	12.6%	Rs. 2,53,15,981 Crores	3.484 Trillion USD
2022-23	12.8%	Rs. 2,85,54,285 Crores	3.930 Trillion USD

Source: Author's inference from Budget Document 2020

If we assume that Indian Economy will progress as per above official estimates, then also to achieve USD 5 Trillion Economy by year 2024-25 there is a need to add 0.55 Trillion each year in 2023-24 and 2024-25 with a nominal growth rate of around 13%. It means real GDP growth rate of over 9% is required with inflation rate of 4% to achieve 5 Trillion Economy target.

7.2 Interview of Experts

Discussion with experts working in this area by interviewing key stakeholders both in the government and private sector was carried out to gauge whether the target of $5 trillion economy will be achieved and which year along with challenges and way forward. Interview of following experts was taken for research:-

Sl. No.	Name of experts	Organisation/ Designation	Date
1.	Shri Rakesh Ranjan	Advisor, NITI Aayog	06 February 2020
2.	Professor Charan Dass Wadhva	Professor Emeritus, Centre for Policy Research, Delhi and	11 February 2020

		Former Professor IIM Ahmedabad	
3.	Professor Sabyasachi Kar	Institute of Economic Growth	12 February 2020
4.	Professor Pravakar Sahoo	Institute of Economic Growth	12 February 2020
5.	Shri Siddhrtha Rathod	Economics Faculty, Gargi College, University of Delhi	14 February 2020
6.	Shri Anil Bisen	Indian Economic Service(Retd.)	20 February 2020
7.	Shri Akhilesh Mishra	Ministry of Finance	28 February 2020

A questionnaire was prepared and circulated among experts for their opinion/ comments. The same is attached in the appendix 'A'.

On the question of what are the reasons for slowdown of the economy & challenges involved in achieving the target of $ 5 trillion, according to the experts, global slowdown is hampering the GDP growth. However, below 6% GDP growth is not solely attributable to global slowdown as we are more inward looking economy. GDP growth of more than 7.5% is possible with good global growth. Global slowdown may affect the GDP growth in a range between 6% to 7.5%. We were never so competitive in the past, still we are lacking in export growth. India is net importer in almost all FTA countries.

Second generation structural reforms are needed in factor market Land, Labour and Capital. There is a need for improvement of legal and judicial services for quick settlement of contract disputes. Judiciary capacity needs to be enhanced with the induction of more judges and appropriate judicial reforms for quick settlement of cases and contract enforcement.

Failure to develop global value chain is affecting the economy. Good incentive structure enables business. Doing business is more risky in current scenario and entrepreneurs want protection from political changes and legal action. Quick settlement of disputes within reasonable time and quick contract enforcement is the need of hour. Private persons can't afford political/ legal risks as these are time cumbersome. Loans become bad loans due to time and cost overrun and pendency of legal enforcement of contract within reasonable time.

Government is trying a number of things to address MSME sector problem and NBFC crisis, however the results are taking considerable time.

Comparison of democratic India with communist China is not appropriate as democracy imposes certain restrictions on development as decisions cannot be imposed unilaterally. Government should be supporter of Business and Business need not to be seen with suspicion. Business is a risky game which needs support.

Most of the experts believe that 10% Nominal growth is not feasible in current scenario; inflation is also going up due to which **the target of achieving $5 Trillion Economy would be possible only by year 2027-28 with growth rate 6.5% per year**.

Shortfall of Government revenue is a big hurdle for growth. GST collection needs to be enhanced with appropriate measures as most business persons have found out ways to evade GST. Tariff on imports have been raised.

Wealth distribution matters a lot. Unequal distribution of wealth has created wide gap among people. Per capita income needs to be raised for sustainable and inclusive development. South Korea is an example of becoming a developed economy from a

developing economy. Due to demographic dividend, there is a window of opportunity to us for another 20 years as we have younger generation in world.

On the question of what is the effect of rising oil prices on Indian Economy it was replied that this will increase the Current Account Deficit and thereby reduce the foreign exchange reserves of India.

On the question can the government lift the economy by spending more keeping in view fiscal deficit target, increased state borrowing, expert suggests that this is highly unlikely as this will create reckless borrowing by state governments without any significant Capital formation thereby increasing the Govt. interest burden. Moreover this will increase the pressure on yield on government bonds and thereby increasing the effective interest rates on government borrowings.

On the question of how to boost savings and Investment which is declining experts suggest that investment by private sectors are done only when there is demand for goods and services. As of now there is demand slowdown and industries are running at reduced capacity therefore unless there is demand uptrend no private investment will come up. To boost the demand government needs to give money in the hands of the consumers especially the lower and middle income group. This can be done by effective reduction in tax rates for individuals. Government need to give big incentives to MSME sectors and other job creating sectors like textile, real estate etc. This will create new job opportunities for the unemployed peoples and create demand for the ancillary sectors like cement, steel, paint and capital good sectors. This will further enhance job opportunities. The focus on Infrastructure in the Union Budget 2020 is also expected to give a push to job creation and thereby increase in aggregate demand due rise in income.

MPC of RBI needs to relook at its present stance on containment of inflation and take decision to cut prime lending rates so as to reduce interest rates and increase credit growth. Increase in food inflation will enhance the rural income which will again increase the rural demand. Revival of key economic sectors will generate more jobs and automatically create demand and savings.

On the question of what second generation Structural changes Indian Economy needs now expert suggest that more than launching any new set of structural reforms need of the hour is to streamline the existing sets of structural reforms viz. IBC, GST etc. However Ease of Doing business parameters like permissions from various ministries, payments to vendors for the valid contractual performances etc must be made online and within stipulated time period. Recent growth slowdown has resulted into less income, less consumption, less demand and less investment as an interlinked chain reaction. Export Niche market, second generation structural reforms, sustainable growth is needed. To increase savings income should be increased and equal distribution among all needed then only consumption and demand will be increased.

Bold reforms are needed to revive the economy. It was expected that the 2nd Budget of NDA 2.0 will be bold enough to address the cleanup of accounts as we are deficient in Tax collection (Only 60% in nine months from targeted).

On the question of what measures are required to drive economy towards five trillion GDP and steps taken by the government towards achieving this target:-

a) Steps for increasing exports by way of eliminating the GST and custom related issues of exporters, providing them soft loans and speedy clearances of Government approvals.

b) Sops to job creating sectors (As indicated above) to increase the Demand and private investments.

c) RBI to reduce interest rates and sacrifices inflation for the sake of growth and increase in rural income.

d) Reduction of personal income tax thereby increasing demand.

e) Increase in the allocation to infrastructure ministries and expeditious expenditure by the later.

f) Reduce interest rates on small saving schemes and EPFO schemes in order to improve interest rates cut transmission.

g) Tighten the tax collection systems and increase govt. revenue earning capacity.

h) To increase the government investments Fiscal deficit targets may be revised upward for two years or so to stimulate growth.

Expert opinion suggests that US$ 5 Trillion USD economy by 204-25 seems very difficult owing to following reasons:-

(a) Falling exports: Exports continue to remain amongst the weakest links of the Indian economy. The India's exports dropped 1.66 per cent to USD 25.97 billion in January 2020, the sixth straight month of contraction. China has become an indispensable part of global business since the 2003 SARS outbreak. China which makes up 16% of global output is reeling under COVID-19 effect and it is gradually becoming pandemic and therefore has potential to hurt global economy hard. Therefore there is remote possibility that Indian export performance may improve at least in H1 FY21.

(b) Weak Credit Growth: Indian Banking and shadow banking system i.e. NBFC is reeling under severe NPA issues caused by the IL&FS crisis in 2018. This situation is further remain stressed due to weakening of telecom and power sectors where lenders have given huge loans. Unless these NPAs issues get resolved credit growth uptake is not possible in near future. For instance, the collapse of the YES Bank and PMC in recent months are examples of how the banking sectors needs urgent attention and reforms.

(c) Demand slowdown: A number of factors are responsible for slowdown in consumption (comprising over 57 per cent of the country's GDP) that fell to 5.1 per cent in Q2 FY20 compared to 9.8 per cent in Q2 FY19. Continuing Rural distress accentuated first by the note ban and then through domestic and global supply gluts, caps rural demand. The wholesale prices of most pulses crops such as tur (red gram), urad (black gram), channa (Bengal gram) and oilseeds are 15-30 per cent lower now. In contrast, the cost of major farm inputs and equipment such as high-speed diesel, diammonium phosphate (DAP), insecticides and pesticides, tractors, cattle feeds and electricity have gone up by 10 per cent or so, squeezing margins. Lower margins reduce farmer's income and affect their demand for goods and services. This slowdown is unlikely to revive anytime soon.

(d) Falling private investment: Rising household debts and credit crunch in the shadow banking space (important for automobiles, consumer durables and homes) are further contributing to the demand slowdown and forcing companies to operate below capacities. Private investment, as measured by the gross fixed capital formation (GFCF), grew by a meagre 1.0 per cent in Q2

2019-20, even as its share in the GDP continued to decline. In the third quarter, GFCF declined 5.15% from a year ago. Growth in gross fixed capital formation (GFCF), is expected to fall 1.7% in the full year. In January this year, the Centre for Monitoring Indian Economy (CMIE), which tracks new projects, pointed out that fresh investment in the public sector had reached 14 years low with an announcement of fresh investments of Rs 50,604 crore in the December quarter of 2019-20 - the lowest since December 2004.

(e) Government investment: The central government's total expenditure (both revenue and capital) has been declining sharply since 2010-11. From a high of 15.4% of the GDP in 2010-11, the total expenditure has hit a low of 12.2% of the GDP in 2018-19. The capital expenditure component has dropped from 2% of the GDP in 2010-11 to 1.6% in 2018-19 and that of the revenue expenditure from 13.4% in 2010-11 to 10.6% in 2018-19. This decline in expenditure is driven by the government's priority to contain fiscal deficit - which has indeed been brought down from 4.8% of the GDP in 2010-11 to 3.4% in 2018-19. The Economic Survey of 2018-19, as do several studies, explain that contrary to earlier years when tax buoyancy took care of fiscal consolidation, that is no more so. With sluggish growth in Government revenue and priority of the Govt to the social sectors, this trend is unlikely to reverse anytime soon. Efficiency and Effectiveness needs to be improved for boost in expenditure.

Government is improving potential of economy. The government is continuing with financial sector reforms with focus on developing bond markets. Research and Development are the backbone of the economy as they lead to innovation. But the share of R&D in India’s GDP is only 1 percent which is very low compared to other

developing countries which invest a huge amount of money on R&D. Therefore, the need of the hour is to allocate more funds and support funding to innovative and high Tech research so that R&D expenditure increases.

The first generation reforms were led by the Central Government. Now it is the responsibility of the States to carry forward the second and third generation reforms with focus on economic and social infrastructure, land and labour reforms.

7.3 Concluding remarks

After studying the current status, challenges, shortfalls and efforts of government to boost the economy in the four key sectors i.e. External Sector (including exports), Industry, Infrastructure and Agriculture Sector a summary of positive aspects/ strengths of Indian Economy, Major challenges being faced by it, recommendations and final way forward has been prepared and explained in succeeding paragraphs of this final chapter.

7.3.1 Strengths of Indian Economy

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

Sl. No.	Country	2017	2018	2019 (E)	Change in position in 2019
1	United States	19.5	20.6	21.4	-
2	China	12.1	13.4	14.1	-
3	Japan	4.9	5.0	5.2	-
4	Germany	3.7	4.0	3.9	-
5	India	2.7	2.7	2.9	▲
6	United Kingdom	2.6	2.8	2.7	▼
7	France	2.6	2.8	2.7	▼
8	Italy	2.0	2.1	2.0	-
9	Brazil	2.1	1.9	1.8	-
10	Korea	1.6	1.7	1.6	-

Data Source: World Economic Outlook, October 2019 database & Economic Survey 2019-20

Notes: E : IMF's estimate; ▲ indicates improvement in rank;▼ indicates drop in rank and - indicates unchanged rank

a) India is one of the fastest growing large economies in the world, having grown at an average of almost 7 percent for the last twenty five years. There have been many notable reforms over this period-most recently the cooperative fiscal federalism that brought the Goods and Service tax(GST) into being; the enactment of Insolvency and Bankruptcy Code; and dis-inflation of recent years, partly as a result of a move to an inflation targeting regime.

b) India was sixth largest economy in July 2019. We have moved one place ahead to become the fifth largest economy of the world in 2020 despite global slowdown (Table 10). The government has been able to maintain macro-economic stability amid tough global environment. We have added 0.2 Trillion in the scenario where U.K. and France both have lost 0.1 Trillion each and one place down in terms of largest economy of world.

c) Since 2018, India's working-age population (people between 15 and 64 years of age) has grown larger than the dependant population — children aged 14 or below as well as people above 65 years of age. This bulge in the working-age population is going to last till 2055, or 37 years from its beginning. India still has a positive birth rate meaning that the size of the workforce will continue to grow for the foreseeable future (unlike China). A rising workforce helps to increase saving and investment. It also enables increased productivity. India has one of the largest English speaking populations in the world. For labour-intensive industries like call centres, India is an obvious target for outsourcing. Given its still favourable demographics, large internal market, high savings rate, varied agro-climatic conditions that permit almost

any kind of crop husbandry and still low levels of overall development, the potential to grow fast for decades is high.

d) People of India have unequivocally given their massive mandate in the Lok Sabha Elections for not just political stability and also reposed faith in our economic policies. India has stable government with strong 'Jan-aadesh'.

e) India's external sector gained further stability in H1 of 2019-20, with a narrowing of Current Account Deficit (CAD) as percentage of GDP from 2.1 in 2018-19 to 1.5 in H1 of 2019-20, impressive Foreign Direct Investment (FDI), rebounding of portfolio flows and accretion of foreign exchange reserves. Imports have contracted more sharply than exports in H1 of 2019-20, with easing of crude prices, which has mainly driven the narrowing of CAD.

f) Between 2006-16, India was able to raise 271 million people out of poverty, which we all should be proud of.

g) India's foreign direct investment got elevated to the level of US$ 284 billion during 2014- 19 from US$ 190 billion that came in during the years 2009-14.

h) The Central Government debt that has been the bane of our economy got reduced, in March 2019, to 48.7% of GDP from a level of 52.2%in March 2014.

i) In an attempt to boost demand, 2019-20 has witnessed significant easing of monetary policy with the repo rate having been cut by RBI by 110 basis points. Having duly recognized the financial stresses built up in the economy, the government has taken significant steps this year towards speeding up the insolvency resolution process under Insolvency and Bankruptcy Code (IBC) and easing of credit, particularly for the stressed real estate and Non-Banking

Financial Companies (NBFCs) sectors. At the same time, impact of critical measures taken to boost investment, particularly under the National Infrastructure Pipeline, present green shoots for growth in H2 of 2019-20 and 2020-21

j) India's benchmark indices, namely, Nifty50 and S&P BSE Sensex, reached record highs during 2019-20 (upto January 16, 2020). The S&P BSE Sensex, the benchmark index of Bombay Stock Exchange (BSE), reached an all-time high closing of 41,952 on January 14, 2020, witnessing an increase of 7.9 per cent from 38,871 level on April 1, 2019. Nifty 50 index reached an all time high closing at 12,355 on January 16, 2020.

7.3.2 Challenges for Indian Economy

a) In July 2019, the Union Budget 2019- 20 had articulated the vision of the Hon'ble Prime Minister to make India a US$ 5 trillion economy by 2024-25. The march towards this milestone has, however, been challenged by less than expected growth of India's GDP so far this year, on the back of a decline in world output. The year 2019 was a difficult year for the global economy with world output growth estimated to grow at its slowest pace of 2.9 per cent since the global financial crisis of 2009, declining from a subdued 3.6 per cent in 2018 and 3.8 per cent in 2017. Uncertainties, although declining, are still elevated due to protectionist tendencies of China and USA and rising USA-Iran geo-political tensions (Economic Survey, 2020).

b) There are many global issues that have the potential to negatively impact growth among which the recent outbreak of COVID-19 is a major cause emerging. To add to India's woes, economists are now predicting a much

greater economic loss due to the impact of the fast-spreading coronavirus (COVID-19), which has claimed over 5,735 deaths globally as on 15 March 2020; the number of infections stands at over 1,53,517 including 137 cases in India. Indian markets have been stung hard as the virus continues to spread to other regions. Analysts had earlier predicted it to be contained in China, but the situation has drastically changed over the past few days as the virus has now spread to a total of 143 countries as on 15 March 2020. While the impact of coronavirus on global markets has worried economists around the globe, no one is sure about how much damage it could cause to the global economy. This global factor may have adverse impact on Trade, Industry and Tourism sector due to which growth may decline up to half a percentage point.

c) A 4.8% growth in 2019, has led the IMF "to the reassessment of growth prospects over the next two years" which underpins India's contribution to global growth. After a disappointing 2019, the IMF projects India's GDP to expand by 5.8% in 2020 and 6.5% in 2021, on the assumption of adequate monetary and fiscal stimulus as well as subdued oil prices. Based on current projections, India is expected to become a $3.2 trillion economy in 2020 and reach $4.6 trillion by 2024 (IMF, 2020). As long as the economy grows, we will reach $5 Trillion dollars some years later than 2024-2025, if we grow at current growth rate of around 5%.

d) The Indian economy grew at a slower pace of 4.7 per cent during the third quarter of 2019-20, showed data released by the National Statistical Office (NSO) on 28 February 2020. The GDP growth rate for the first quarter of 2019-20 has been revised to 5.6 per cent and for the second quarter to 5.1 per cent in second Advance Estimate (AE) by NSO. India's economic growth for

the current fiscal has been pegged at 5 per cent - the lowest in 11 years - and a recovery is expected only in FY21 when the economy is expected to grow at 6-6.5 per cent.

e) According to chairperson of the National Committee on Financial Inclusion and Literacy at NITI Aayog, India is "trapped" within a range-bound GDP growth of 5-6 per cent and to get to a USD 5 trillion by 2024-25 or USD 10 trillion economy by 2030 from the current levels of USD 2.9 trillion, India needs to grow at 11.5 per cent annually in nominal terms, or 7.5 per cent in real terms over the next 10 years ("USD 5 Trillion Economy", 2020).

f) India's aggregate fiscal deficit (state plus Centre) is still close to 6.5% of GDP, higher than almost any in the G-20 nations.

g) A large economy needs an efficient banking sector to support its growth. As PSBs account for 70 per cent of the market share in Indian banking, the onus of supporting the Indian economy and fostering its economic development falls on them. Yet, on every performance parameter, PSBs are inefficient compared to their peer groups. Micro-prudential regulation is supposed to avoid a large-scale banking crisis. Using taxpayer money to bail out failed banks is not a good idea. For a comparison, each Rs. 1 trillion of public expenditure buys 10,000 Kms of four lane highways. We should visualize that these are costs for the economy. The banking and financial system has undergone a lot of stress in the past decade or so due to bad loans, bad management and lax regulation. While there is no panic run on banks or debilitating loss of confidence in the system, the government should be worried about the increasing vulnerability and unviability of key players in the financial system. In the past one and-a-half years, two banks and a

nonbank lender have failed and had to be placed under RBI moratorium. While Yes Bank is in the process of being rescued, a solution to revive PMC Bank is not yet in place. Last year, DHFL became the first major non-bank lender to be placed under moratorium and is now in the process of being sold.

h) A market failure of trust happened due to a few large unscrupulous promoters. This created large Non-Performing Assets (NPAs) in the banking system, especially for Public Sector Banks (PSBs). The market failure of trust percolated to a couple of major Non Banking Financial Companies (NBFCs). As investors in Liquid Debt Mutual Funds ran collectively to redeem their investments, it triggered panic across the entire gamut of NBFC-financiers, thereby causing a crisis in the NBFC sector. In other words, the invisible hand of the market needs the supporting hand of trust (Economic Survey, 2020).

i) Industrial sector performance is critical to achieving the ambitious goal of making India a five-trillion economy. The sector plays a decisive role in determining the overall growth of national output and employment through its backward and forward linkages with the other two sectors of the economy. It contributes close to 30 per cent of total gross value added (GVA). The sector is, however, vulnerable to several internal and external economic challenges which affect its overall performance.

j) Technological innovation is rapidly driving down the cost of capital goods, and the growth of automation and artificial intelligence potentially threatens the business model of low-wage, labour-intensive industries. The experience of the past 30 years suggests that disruptions caused by new technology come in ways we cannot predict, and with a speed that leaves assumptions of best

practice in ruins. By one estimate, 14 percent of the global workforce—that is to say, 375 million workers—could lose their jobs in this decade as a result of automation. While the advanced economies are more exposed, India won't be exempt. Some 9 percent of Indian workers could lose their jobs (Lipton, D., 2020).

k) The collapse of private investment and poor performance of exports are the major problems. Reviving confidence among domestic private investors require a much larger effort. A credible plan for reducing the combined deficit of the centre and the states in the medium term is absolutely essential because at present a realistic assessment of the combined deficit including postponement of expenditures takes it close to 9 % of the GDP. Since the net financial savings by households is only 10 to 11 % of the GDP, it means the Government sector absorbs almost all the savings leaving very little for the private sector. The burden of this scarcity falls on small and medium enterprises since the big ones resort to funding from abroad (Ahluwalia (2020)).

l) The realisation of the objective of doubling farmer's income necessitate addressal of some of the basic challenges of agriculture and allied sector. The issues such as investment in agriculture, water conservation, improved yields through better farming practices, access to market, availability of institutional credit, increasing the linkages between agricultural and nonagricultural sectors, etc. need urgent attention. Poor agricultural performance has contributed to agricultural distress and lack of demand in rural areas. This is one of the major factors contributing to declaration in overall growth in the economy.

m) Despite 63rd ranking in Ease of doing business, India still continues to trail in Ease of doing business, ease of starting business, Registering property, paying taxes and enforcing contracts.

n) India's legal system, burdened by 3.5 crore pending cases, is arguably now the single biggest constraint to doing business in India and thereby fostering investment. The World Bank's Ease of Doing Business Report ranked India at 163 for contract enforcement. Experience shows that every other field of economic reform, be it property rights, taxes and insolvency, eventually flounders because it gets entangled in the legal system. This is why the legal sector reforms must be a top priority (Economic Survey 2018-19).

o) India's labour force does not have sufficient skills, and labour regulations make it hard for exporters to employ the number of people that would make them more efficient.

p) Any large project that requires a substantial amount of land is difficult to implement in India because of high transaction costs. The problems run deeper: negotiating with thousands of farmers in a contiguous area, sifting through incomplete land records and settling disputes that move through courts at a very slow pace, all become serious constraints for industrial and infrastructure projects.

q) When we do not have a simple single-rate Goods and Service Tax (GST) system, this has adverse consequences for GDP. More than 80% of the countries which introduced the GST after 1995 have adopted a single rate GST. In India various pressure groups lobby for higher or lower taxes on one industry or another, and this distorts the resource allocation of the economy. Government is an important buyer of goods and services, and a low single-

rate GST would yield cost savings for all levels of government (Kelkar & Shah, 2019, pp. 38-39).

r) One of the major requirements for sustainable and inclusive economic growth is an extensive and efficient infrastructure network. It is critical for the effective functioning of the economy and industry. Rapid economic growth in recent years has put enormous pressure on existing infrastructure, particularly in transport, energy and communications. Unless it is significantly improved , infrastructure will continue to be a bottleneck for growth and an obstacle to poverty reduction.

7.3.3 Recommendations

In India, the modernization of the political system and the economy is taking place at the same time-and feeding into each other. In this process, economic policy strategy must serve the larger objective of building the republic.

No country has grown rapidly without also displaying robust export growth. Any plan to get the economy back to faster growth must therefore include a credible plan to improve export performance. Going forward, India should strive and become a part of the global manufacturing value chain. We have been fairly insulated from the global value chain. Therefore, when major manufacturing economies experienced slowdown in the past, India was not significantly impacted. It cannot be a justification for remaining permanently away from it for far too long. For a major economy such as ours, which is increasingly making its global presence felt, it is necessary to play a significant part of the global value chain. However, this will be only possible when decides to become a member of major regional groupings in ASIA such as RCEP and APEC.

The investment rate should be raised from 29 per cent to 36 per cent of GDP which has been achieved in the past, by 2022-23. Exports of goods and services combined should be increased from USD 478 billion in 2017-18 to USD 800 billion by 2022-23.

A huge employment opportunity exists for India's youth in construction, operation and maintenance of infrastructure. There is a need to give special thrust to Infrastructure –focused skill development opportunities. Infrastructure financing requires equity financing until the infrastructure asset is generating cash flows, as there is considerable political and contracting risk in the early phase. After the asset starts working, and generating cash flows, there is a role of long term debt. This requires a bond market to work efficiently.

Developing a robust education and skill development Infrastructure based on the emerging needs is central to achieving a higher growth trajectory that leads India to the $5 Trillion economy goal quickly.

The demographic of the labour workforce is changing into multi-job, part-time/full-time workforce. Hence, it is imperative that the labour laws of India undergo a large holistic reform to understand the 21st century Indian and to balance the needs of protecting the workforce and enhancing the competitiveness of the MSMEs that needs to be urgently undertaken.

The revival of India's exports looks bleak given the lack of demand in the world market with both US and EU looking inwards and the fact that India is not a part of any major grouping of RTAs. The way forward for India on the export front would be to explore new markets in Africa and Central Asia and make its domestic

economy competitive to join RCEP. RCEP has the potential to deliver significant opportunities for businesses in the East Asia region, given the fact that the 16 RCEP participating countries account for almost half of the world's population; contribute about 30 per cent of global GDP and over a quarter of world exports. There is a need to restructure India's trade policy to increase the competitiveness of Indian industry and exports.

The manufacturing sector, especially micro, small and medium enterprises (MSMEs), which provide the bulk of employment for the skilled and semi-skilled in the labour force, has been growing at an abysmally low rate between 2% and 5%, and most recently below 2 percent. This collapse of MSME sector has resulted in the rise of unemployment and to a decline in the rate of saving and subsequently of investment to an alarmingly low level of 28% of GDP. The demographic of the labour workforce is changing into multi-job, part-time/full-time workforce. Hence, it is imperative that the labour laws of India undergo a large holistic reform to understand the 21st century Indian and to balance the needs of protecting the workforce and enhancing the competitiveness of the MSMEs that needs to be urgently undertaken.

The growth rate is slowing down in India neither because of lower productivity of the labourers or that of the land, nor because of shortage of labour or productive capacity, but because of the lack of demand at the aggregate level. There are four sources of aggregate demand *viz.* i) domestic private consumption, ii) (net) export demand from abroad, iii) demand by the government and iv) aggregate investment demand. In national income accounting, our GDP is estimated in the country by simply adding these four components mentioned above.

The government expenditure must rise (and not fall) as a proportion of GDP to tackle a situation of slowdown led by lack of aggregate demand. More money should be spent in those areas where it would be most effective in boosting the aggregate demand under a demand-constrained situation. We know that the richer people save more and poorer people consume more out of their total income, on an average. Saving or import do not add to the aggregate domestic demand but, the consumption demand does. If poorer section of population gets more income, then they will spend a large proportion of that on domestically produced goods and services. Some other domestic people would earn income by selling those commodities and services. Then they will spend part of that income on consumption of domestically produced goods and services and so on and so forth. The aggregate demand would rise more than the initial rise in government expenditure. The purchasing power of poor people can be raised indirectly by reducing the out of pocket expenditures on health and reducing cost of educational services by providing government sponsored quality education and health facilities for all. The income of poor people may directly be enhanced by strengthening the MGNREGA. Many studies have shown that government investment in infrastructure attracts private investment; therefore, capital expenditure on infrastructure is another area to give a boost.

The neglect of required reforms in agriculture sector has created wide disparity between agriculture sector and non agriculture sector. There is a need to reorient governance to enhance farmer's incomes by placing their prosperity at the centre of the development agenda The objective of inclusiveness in development has to be realised through a focus on rural development where agriculture can deliver significantly. Agriculture being a state subject under the constitution, it is essential to mobilize states and Union Territories to own and achieve the goal of DFI set by

Union government by efficient implementation of development initiatives, policies and innovative programmes.

7.3.4 Way ahead

The dominant imperative for India is to increase GDP, so as to bring prosperity to over a billion people. We know, from the historical experience, that the only way out of mass poverty is to obtain modest rates of growth of per capita GDP that are sustained for many decades.

India has capability and capacity both to become the $5 Trillion Economy. Considering the latest slowdown it may slip two to three years from the target year 2024-25. But certainly by year 2027-28 Indian Economy will be a $ 5 Trillion Economy. India cannot achieve its aspirational goal of becoming a $5-trillion economy by 2024-25 unless it sustains a growth rate of about 9 per cent per annum, according to C Rangarajan, former Governor of the Reserve Bank of India. A $5-trillion economy in a matter of 5 to 6 years cannot be achieved unless the economy grows in a sustained way between 8 and 9 per cent (Rangrajan, C., 2020).

"Let's move ahead with the resolve to make India a $5 trillion economy," The Prime Minister said while replying to a debate on Motion of Thanks to President for his address to Parliament on 06 February 2020. He said that the vision of the government is to ensure greater investment, better infrastructure, increased value addition and maximum job creation. He said that in the coming days, the government is moving ahead with Rs 100 lakh crore infrastructure projects as the sector helps in pushing economic growth and job creation. Among the things that will drive India's progress is next-generation infrastructure (“Let’s Work”, 2020).

There is a need for sustained real GDP growth of 8 to 9% per year for achieving the target. A few steps that could be taken as a consolidated way forward to achieve the target of 5 Trillion economy are enumerated below:-

a) A clean, reliable and robust financial sector is critical to the economy. In our efforts to achieve the USD 5 trillion economy, the financial architecture should keep evolving and move from strength to strength. There is a need to prioritise the Government spending better, focusing on filling clear investment gaps and protecting the vulnerable.
b) Yet, given India's record of growth with macroeconomic stability over the last five years (annual average growth rate of 7.5 per cent and annual average inflation of 4.5 per cent), the economy is poised for a rebound towards the US$ 5 trillion goal. Ensuring macroeconomic stability has three elements to it: maintaining low and stable inflation: ensuring the consolidated fiscal deficit leaves enough space for private investment: and ensuring that the CAD is sustainable and can be financed largely through stable capital inflows, to help insulate the economy from sudden swings in global sentiments. (Rajan, Banerjee, Gopinath & Sharma (2019)).
c) However, a lot needs to be done to revive the economy, especially in areas such as labor reforms and infrastructure to ensure that India is recognized as a strong contender in the global supply chain.
d) The Economic Survey 2019-20 attempts to craft a framework of policies that can foster wealth creation in India as India aspires to become a $5 trillion economy by 2025. The Survey posits that India’s aspiration to become a $5 trillion economy *depends critically on strengthening the invisible hand of markets together with the hand of trust that can support markets*. The

invisible hand needs to be strengthened by promoting pro-business policies to (i) provide equal opportunities for new entrants, enable fair competition and ease doing business, (ii) eliminate policies that undermine markets through government intervention even where it is not necessary, (iii) enable trade for job creation, and (iv) efficiently scale up the banking sector to be proportionate to the size of the Indian economy. Introducing the idea of "trust as a public good that gets enhanced with greater use", the Survey suggests that policies must empower transparency and effective enforcement using data and technology to enhance this public good.

e) The economy cannot achieve the ambitious $5 trillion mark as long as it is plagued by market malpractices and suboptimal supervision. Therefore, significant enhancement in the quantity and quality of manpower in our regulators (CCI, RBI, SEBI, IBBI) together with significant investments in technology and analytics needs to be made. This would enhance the effectiveness of the hand of trust in supporting the invisible hand for greater wealth creation.

f) Labour reforms : India needs to focus on various issues such as company act, freedom to hire and fire, reforming the trade union act etc. India's labour is handicapped without capital, and our capital is handicapped without labour. We need urgent reform on wages (reduce the gap between gross and take-home salary), social security — the costs and governance of Employees' State Insurance (ESI) and Employees' Provident Fund Organisation (EPFO) — and employment law (we should have one code instead of four, and it should be more than a word-processing exercise). The demographic of the labour workforce is changing into multi-job, part-time/full-time workforce.

Hence, it is imperative that the labour laws of India undergo a large holistic reform to understand the 21st century Indian and to balance the needs of protecting the workforce and enhancing the competitiveness of the MSMEs that needs to be urgently undertaken.

g) To bring about changes in the MSME act and MSME policy so as to increase the contribution of this sector to exports and integrate India into the regional value chains through MSMEs. To make MSME's graduate from tiny and small enterprises to medium and large enterprises. MSMEs contribute nearly 28% to the country's GDP and its contribution towards exports is nearly 40%. Nearly 11 Crore people are employed in this sector. Financial assistance is also vital for MSME sector and role of banks becomes very important. For MSMEs working capital is very essential.

h) To achieve the GDP of $5 trillion by 2024-25, India needs to spend about $1.4 trillion on infrastructure. The challenge is to step-up annual infrastructure investment so that lack of infrastructure does not become a binding constraint on the growth of the Indian economy. The National Infrastructure Pipeline had been launched on 31st December 2019 of Rs. 103 lakh crore. It consists of more than 6500 projects across sectors and will include housing, safe drinking water, access to clean and affordable energy, healthcare for all, world-class educational institutes, modern railway stations, airports, bus terminals, metro and railway transportation, logistics and warehousing, irrigation projects, etc. It will also bring in generic and sectoral reforms in development, operation and maintenance of these infrastructure projects.

i) Stepping up infrastructure investment, improving productivity and quality of infrastructure spending, removing procedural bottlenecks, improving governance, and above all maintaining consistency in government's infrastructure policies are some issues that need to be addressed.

j) Staying out of a major new trade grouping in Asia like RCEP will make it difficult for India to link with global value chains.

k) To focus more on public private partnerships since the government doesn't have enough resources for carrying out large scale infrastructure projects. So private sector participation in infrastructure should be encouraged by giving incentives and tax exemptions etc.

l) If the government is going to increase its expenditure, and the fiscal deficit goes up, then the increase in expenditure must go into capital expenditure. Increasing the government expenditure only to raise revenue expenditure will harm the economy.

m) Allied sectors such as animal husbandry, dairying and fisheries sectors need to be given a boost to provide an assured secondary source of employment and income especially for the small and marginal farmers. Coverage of food processing sector needs to be scaled up to create an additional source of market for agricultural commodities. As the proportion of small and marginal holdings is significantly large, land reform measures like freeing up land markets can help farmers in improving their income. Small holdings of India can be better harnessed through appropriate use of farm mechanization as the degree of farm mechanisation is low as compared to the other major developing countries like Brazil and China. The coverage of irrigation facilities needs to be extended while ensuring an effective water conservation

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

n) All countries which managed to escape from mass deprivation did so through sustained GDP growth that played out over many decades. We should never lose sight of this prioritization of growth oriented policies. Growth is the most powerful, and only effective, anti poverty weapon (Kelkar & Shah, 2019, pp. 95).

o) Besides having rapid growth, it is also necessary to ensure that growth is inclusive, sustained, clean and formalized.

p) There is a need to boost Industry sector. One route to a stronger manufacturing sector is to deepen linkages to global value chains, especially the use of foreign intermediate goods in producing exports. Policies that limit these linkages, for example tariffs on those intermediate goods, constrain the emergence of the vibrant and globally competitive manufacturing that can create Indian jobs. So far, the impact of global trade tensions on India has been limited, ironically because its trade integration remains relatively limited compared with other Asian exporters. Nonetheless, the potential for reverberations through the investment channel could be significant over the medium term—especially if those trade tensions worsen. Nonetheless, India has an opportunity to emerge as a global manufacturing hub as foreign companies reassess their production base in China. But so far, India appears to be lagging ASEAN in this respect. For example, a recent Nomura Securities study of 56 companies that had relocated from China found that 26 moved their factories to Vietnam—but only three to India. What will it take to play a more important role in global value chains? The answer is a

combination of infrastructure investments, a reduction of tariff and non-tariff barriers, and reforms that encourage the emergence of larger and more productive manufacturers. At the end of the day, success requires creating employment. As argued in a recent IMF study, India's investment in tertiary education has been associated with strong growth in the high-skilled service sector. A demographic dividend can only materialize if India can complement this by spending directed at primary education to broaden access to quality education and reducing the still large gender gaps in labour force participation. Without these efforts, together with labour market reforms aimed at protecting people – versus protecting jobs-- a growing population could become a drag on growth, and income inequalities will only widen (Lipton, D., 2020).

q) The investment rate should be raised from 29 per cent to 36 per cent of GDP which has been achieved in the past, by 2022-23. Exports of goods and services combined should be increased from USD 478 billion in 2017-18 to USD 800 billion by 2022-23 (NITI Aayog, 2018).

r) India needs to remain globally competitive, particularly in the production and exports of manufactured, including processed agricultural, goods. A focused effort on making the logistics sector more efficient is needed. Power tariff structures may be rationalized to ensure global competitiveness of Indian industries. Import tariffs that seek to promote indigenous industry should come with measures to raise productivity which will provide the ability to compete globally. Improve connectivity by accelerating the completion of announced infrastructure projects. Enhancing physical connectivity will help reduce delivery times and improve global connectivity and the reach of our

exporters. Work with states to ease labour and land regulations. In particular, we should introduce flexibility in labour provisions across sectors. There is a need to conduct labour reforms together with a comprehensive attempt to raise the Indian workforce's skills.

s) A key factor in spurring growth will be reforms that alleviate supply side constraints on growth and job creation. We have to enable both the industrial sector and service sector to operate at larger scale. This involves Labour, land and judicial/legal reforms. Digital land records are a must, so that ownership of land can be guaranteed by the government and a real land market can develop.

t) Faster and cheaper access to justice reduces some of the obstacles faced by entrepreneurs. Judicial efficiency is essential to firm productivity. A conservative estimate suggests that a 10% increase in judicial quality increases firm sales by 1–2%.

u) Exports are essential for growth and job creation, as they allow a country to produce for the entire world and not just its own people. India's non oil, non gold current account has deteriorated by almost 3% of GDP in the last three years, which calls for urgent steps to improve the underlying competitiveness of the tradable sector. The government will have to make sure that the macroeconomic environment is favorable for trade by signing trade agreements and by avoiding arbitrary taxes, restrictions and tariffs. We need to increase the competitiveness of our exports. We must diversify the product base as well as the markets. On the import side, increasing domestic production of commodities like coal and oilseeds will help to constrain the import growth rate.

The road to $5 trillion economy is difficult but achievable. A number of initiatives have been taken by the government which will push the economy towards the $5 trillion target set by the Prime Minister. The massive thrust on Infrastructure particularly in the aviation, transport, and housing is happening in a scenario of global slowdown. The country can make a push towards $5 trillion economy faster by focusing on External Sector, Manufacturing and Agriculture as suggested in the recommendations and way-ahead sections described above. Government alone cannot achieve the target without Public participation. Every individual, every family, every village, every panchayat, every taluka and every district is to work on increasing their earnings to contribute their mite to the making of a new India of USD 5 Trillion economy. At the same, the contribution of private sector to Infrastructure development and thereby the growth of the economy cannot be undermined. Given the resource crunch at the government level, the role of private sector is vital.

Well because big goals can inspire us to take action. They can fit well with our aspirations and desires to achieve greatness. We all want to be recognized, and we get recognized for big achievements, not small ones. So **Aim high, start small, and keep going till you achieve the target.**

उत्तिष्ठत जाग्रत प्राप्य वरान्निबोधत।

“Arise, awake, and stop not till the goal is reached”

…………..Swami Vivekanand

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Appendix 'A'

QUESTIONNAIRE

(For Experts working in Economics)

Background

As per Economic Survey 2019-20, GDP growth rate for the last three FY 2017-18, 2018-19 and 2019-20 has been found less as compared to estimated figures projected in last Economic Survey.

Financial year	GDP Growth projected earlier	Revised Growth as per Economic survey 2019-20
2017-18	7.2%	**7**% (2nd Revised estimates)
2018-19	6.8%	**6.1**%(1st Revised Estimates)
2019-20	7%	**5.7%**

To achieve 5 Trillion economy target, the Economic Survey 2018-19 had assumed a real growth rate of 8 %, rate of inflation at 4% and that by 2024-25 the exchange rate would reach Rs. 75 per dollar.

Given the current year's expected real GDP estimate of 5.7 % compared to assumed at 8% (Required growth for 5 trillion target) in the Survey, it emerges that the target will take longer.

Issue

In the current scenario of slowdown, following Questions are required to be addressed to achieve the 5 trillion economy target:-

a) Is the target of 5 trillion economy realistic by 2024-25? Has the budget 2020-21 done enough to boost growth?

b) Will the detailed plan forward by Economic Survey 2019-20 help to boost growth & achieve target of $ 5 trillion?

c) Is the ideology of "wealth creation the invisible hand supported by the hand of trust" sufficient to achieve the target?

d) How to **boost savings and Investment** which is declining?

e) What second generation Structural changes Indian Economy needs now ?

f) What is the base year number for 5 trillion economy in the current scenario? The IMF estimates (2.971 Trillion in April 2019 as per WEO)

were projections and the real growth has changed both for 2018-19 & 2019-20 and is likely to be much below expected (latest being 6.1% for 18-19 against 6.8%), the base year estimate has changed.

g) What nominal growth is required in changed scenario? This means Real Growth rate plus rate of Inflation.

h) What would be the Rupee -$ exchange rate over the period upto 2024-25? It is extremely difficult to forecast rate of inflation or exchange rate for the next five years.Given these three assumptions only the year of achievement of the target will depend

i) Can the government lift the economy by spending more keeping in view fiscal deficit target, increased state borrowing?

j) What measures are required to drive economy towards five trillion GDP and steps taken by the government towards achieving this target?

k) What are the reasons for slowdown of the economy & challenges involved in achieving the target of $ 5 trillion?

l) What measures have been taken to boost Agriculture, trade (including export), industry and Infrastructure?

m) How to increase demand, consumption, and investment to revive the economy?

n) What is the effect of rising oil prices on Indian Economy?