# Czech University of Life Sciences Prague Faculty of Economics and Management Department of Economics



# **Master's Thesis**

**Economic Development and Poverty alleviation of India** 

Pei-Nung Wu

## CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Economics and Management

# **DIPLOMA THESIS ASSIGNMENT**

Pei-Nung Wu, BA

**Economics and Management Economics and Management** 

Thesis title

**Economic Development and Poverty Alleviation in India** 

#### **Objectives of thesis**

The main aim of the thesis is to evaluate how the government schemes work for poverty alleviation and economic development in the last ten years in India. The main aim will be concretized with partial aims.

#### Methodology

The thesis will be divided into three parts.

The first part is a theoretical one and is based on a literature search. It defines the current state of knowledge in the field of poverty alleviation. In this part, articles, books, research, and different electronic resources will provide information. Methodologically, this part of the thesis will be the analysis of documents.

The second part will rely on the theoretical part, which is the thesis's crucial component. Methods of quantitative research such as statistical and mathematical methods will be used in this part. The analysis will be done for India.

The final part concludes the results of the previous parts and discusses them with another author.

#### The proposed extent of the thesis

60 - 80 pages

#### Keywords

Poverty alleviation, programmes, economic growth, human development.

#### **Recommended information sources**

- Alkire, S., Oldiges, C., & Kanagaratnam, U. (2021). Examining multidimensional poverty reduction in India 2005/6–2015/16: Insights and oversights of the headcount ratio. World Development, 142, 105454. https://doi.org/10.1016/j.worlddev.2021.105454
- Cobbinah, P. B., Black, R., & Thwaites, R. (2013). Dynamics of Poverty in Developing Countries: Review of Poverty Reduction Approaches. Journal of Sustainable Development, 6(9). https://doi.org/10.5539/jsd.v6n9p25
- Erlando, A., Riyanto, F. D., & Masakazu, S. (2020). Financial inclusion, economic growth, and poverty alleviation: evidence from eastern Indonesia. Heliyon, 6(10), e05235. https://doi.org/10.1016/j.heliyon.2020.e05235
- Kulkarni, V. S., & Gaiha, R. (2021). Beyond Piketty: A new perspective on poverty and inequality in India. Journal of Policy Modeling, 43(2), 317–336. https://doi.org/10.1016/j.jpolmod.2020.10.003
- Rafi, M., Naseef, M., & Prasad, S. (2021). Multidimensional energy poverty and human capital development: Empirical evidence from India. Energy Economics, 101(June), 105427. https://doi.org/10.1016/j.eneco.2021.105427
- Tilak, J. B. G. (2007). Post-elementary education, poverty and development in India. International Journal of Educational Development, 27(4), 435–445. https://doi.org/10.1016/j.ijedudev.2006.09.018
- Todaro, Michael P., and Stephen C. Smith (2015) Economic Development. 12th Edition. Pearson . https://www.pearson.com/us/higher-education/program/Todaro-Economic-Development-12th-Edition/PGM142511.html.

#### **Expected date of thesis defence**

2021/22 SS - FEM

#### The Diploma Thesis Supervisor

doc. Ing. Irena Benešová, Ph.D.

#### **Supervising department**

**Department of Economics** 

Electronic approval: 15. 2. 2022

prof. Ing. Miroslav Svatoš, CSc.

Head of department

Electronic approval: 21. 2. 2022

doc. Ing. Tomáš Šubrt, Ph.D.

Dean

Prague on 30. 03. 2022

Declaration
I declare that I have worked on my master's thesis titled "Economic development and
poverty alleviation in India " by myself and I have used only the sources mentioned at the end of the thesis. As the author of the master's thesis, I declare that the thesis does not break
any copyrights.
In Prague on 31st March

# Acknowledgement

I would like to extend my deepest gratitude to the supervisor of my thesis, doc. Ing. Irena Benešová, Ph.D. for her patience and advise to support my work on this thesis. From the formation of the structure to the delivery of the final work on this thesis, her encouragement was always there when needed.

I would like to recognize the invaluable assistance of my future father-in-law, Mahesh Kumar Kashyap from Central Government of India for introduction and consultation regarding Indian schemes which are analysed in my thesis.

I am very grateful to all my teachers for their contribution to my academic knowledge and Czech University of Life Sciences Prague as an opportunity of studying and deliver this work on thesis.

Finally, I would like to thank my partner and family for unconditional support and motivation.

# **Economic Development and Poverty alleviation of India**

#### **Abstract**

India is one of the fastest developing countries with good economic development and poverty alleviation in recent years. According to the data from the World Bank, Gross domestic product (GDP) of India has continuously grown up after gaining independence from the United Kingdom. Although poverty issues remain inside the nation, current prime minister Narendra Modi is dedicated to alleviation of the poor people with introduction of many schemes for poverty alleviation and economic development. In this paper, GDP growth in India and poverty indices will be analysed. Moreover, there are five selected schemes implemented by the Indian government which were chosen based on the lowest requirements from Maslow Needs Hierarchy theory and questionnaires proposed to various departments of Indian government concerned with the selected schemes. After analysing, the result explains the growth of Indian economy by indices implementation and also the impact of the selected schemes toward to the population under poverty especially in rural part of India. At the end also leave the suggestion according to the results to Indian government for better development of Indian.

**Keywords:** Poverty alleviation, Programmes, Economic growth, Human development.

# Hospodářský rozvoj a zmírnění chudoby v Indii

#### **Abstrakt**

Indie je jednou z nejrychleji se rozvíjejících zemí, která v posledních letech zaznamenala dobrý hospodářský rozvoj a zmírnění chudoby. Podle údajů Světové banky hrubý domácí produkt (HDP) Indie po získání nezávislosti na Spojeném království neustále roste. Přestože v zemi stále přetrvávají problémy s chudobou, současný premiér Naréndra Módí se věnuje zmírnění chudoby chudých lidí zavedením mnoha programů na zmírnění chudoby a hospodářský rozvoj. V tomto článku bude analyzován růst HDP v Indii a indexy chudoby. Dále je zde pět vybraných programů zavedených indickou vládou, které byly vybrány na základě základních potřeb z Maslowovy teorie hierarchie potřeb a dotazníků navržených různým oddělením indické vlády, která se zabývají vybranými programy. Po analýze výsledků vysvětluje růst indické ekonomiky prostřednictvím zavedení indexů a také dopad vybraných programů na chudé, zejména ve venkovských částech Indie. V závěru je uveden návrh podle využití sloužící k rozvoji Indie.

Klíčová slova: Zmírnění chudoby, programy, hospodářský růst, lidský rozvoj.

# **Table of content**

1	Intro	ductionduction	13
2	Obje	ctives and Methodology	16
	2.1	Objectives	16
	2.2	Methodology	16
3	Liter	ature Review	19
	3.1	Economic development	19
	3.2	Economic growth	20
	3.3	Poverty alleviation	21
	3.3.	Relation between economy development and poverty alleviation	22
	3.4	Implementation in developing countries	23
	3.4.	Poverty alleviation in People of Republic China	23
	3.5	Government institutions for poverty alleviation in India	25
	3.5.	1 Pradhan Mantri Awaas Yojana (Gramin)	26
	3.5.	2 Pradhan Mantri Gram Sadak Yojana	27
	3.5.	National Broadband Mission	28
	3.5.	4 Ayushman Bharat- National Health Protection Mission	30
	3.5.	Mahatma Gandhi National Rural Employment Guarantee Act	32
4	Pract	ical Part	34
	4.1 India	Analysis of previous situation of economic development and poverty al 34	leviation in
	4.1.	1 Analysis of GDP growth and GDP sectors of India	35
	4.1.	2 Analysis of poverty indices	40
	4.2	Evaluation of poverty alleviation schemes	46
	4.2.	1 Pradhan Mantri Awaas Yojana (PMAY-G)	46
	4.2.	2 Pradhan Mantri Sadak Yojana	49
	4.2.	National Broadband Mission	51
	4.2.	4 Ayushman Bharat – National Health Protection Mission	53
	4.2.	Mahatma Gandhi National Rural Employment Guarantee Act	56
5	Resu	Its and Discussion	60
	5.1	Summarized analysis	60
	5.1.	1 Result of GDP growth in India	60
	5.1.	2 Result of poverty indices	60
	5.2	Feedback for selected schemes	61
6	Conc	lusion	64
7	Dofor	rancas	66

8 Appendix	69
List of pictures	
Figure 1- Headcount Ratio in India	14
Figure 2 - States & Union Territories in India	
Figure 3 - GDP growth (annual %) in India	
Figure 4 - Result of FGT	
Figure 5 - Income inequality in India	
Figure 6 - Palma Ratio	45
Figure 7 - Workflow of AwaasSoft	48
List of tables	
Table 1 - Share in gross value added	38
Table 2- Share of different groups of services in total GDP from services (2004-(%)	-05 prices)
Table 3 - Share of different groups services in total GDP from services (2011-12)	2 prices) (%)
There is a sum of the	. , , ,
Table 4 - Annual growth in the industrial sector, 2011-12 prices (%)	
Table 5 - Foster-Greer-Thorbecke Poverty Measurement	

# List of abbreviations

AB-NHPM Ayushman Bharat Yojana-National Health Protection Scheme

BPL Below Poverty Line
CUCPL Cum Prioritisation List
DPRs Detailed Project Reports

FY Financial Year

FGT Foster-Greer-Thorbecke Poverty Ratio

GDP Gross Domestic Product

GNI Gross Net Income

GIS Geographic Information System
GRRIS Geospatial Rural Information System

HWCs Health and Wellness Centres

ICRIER Indian Council for Research on International Economic Relations

IAP Integrated Action Plan

IEC Information Education and Communication

MDGs Millennium Development Goals

MGNREGA Mahatma Gandhi National Rural Employment Guarantee Act

MPI Multidimensional Poverty Index

NRDWP National Rural Drink Water Programme
NRCMS Rural Cooperative Medical System
NRSPI New Rural Social Pension Insurance

NI Net Income

OOPE out-of-pocket Expenditure

OMMAS Online Monitoring, Management & Accounting System

PRC People's Republic of China
PMAY Pradhan Mantri Awaas Yojana
PMGSY Pradhan Mantri Gram Sadak Yojana
PMJAY Pradhan Mantri Jan Arogya Yojana
SECC Socio Economic and Caste Census
SMEs Small and Medium Enterprises

UHC Universal Health Care

UMANG Unified Mobile Application for New-age Governance

UTs Union Territory

## 1 Introduction

Every developing economy strives to implement economic policies and programs that promote economic growth and development. It is not a one-time deal, but a long-term process that will result in greater financial and human resource utilization, higher demand and supply of goods and services, improved quality of life, and increased national income. Boosting national income, raising standard of life, assisting in the utilization of national resource property, resultant structural changes, and promoting social-economic equality are all significant characteristics of economic growth.

Overall, it functions well as education, well-being, health, money, and the general population's living standards increase. At the same time, it is a long-term process that will result in better use of financial and human resources, higher demand for and supply of goods and services, improved quality of life, and increased national income.

According to brief report of World Bank in 2020 [1], India has made great progress in eliminating absolute poverty since the 2000s. Over 90 million individuals were moved out of extreme poverty between 2011 and 2015. The COVID-19 epidemic, on the other hand, caused India's GDP to decline by 7.3 percent in FY21. Following the deadly 'second wave,' growth in FY22 is likely to be closer to the lower end of the range of 7.5 to 12.5 percent, keeping India among the world's fastest-growing economies. Since the country's independence, addressing and eliminating poverty has been a priority. Poverty in India is caused by a number of factors, including a lack of financial support for the poor, overpopulation, fewer work prospects, societal prejudice and casteism, a low level of education, and widespread corruption. The removal of poverty is India's most persuasive task, and to that end, the Indian government has implemented a variety of programs, schemes, and policies centered on two main goals which are launching anti-poverty programs targeted at a specific group of people and increasing the country's economic growth by providing job opportunities to lower-income groups.

Poverty Alleviation, Relief, or Reduction is a collection of policies aimed at permanently lifting people out of poverty. According to the Global Multidimensional Poverty Index (MPI) 2021, India ranks 66th out of 109 countries, and the Global Hunger Index 2021 ranks India 101st out of 116 countries, with a score of 27.5, indicating that hunger is a major problem. [2] As stated in NITI Aayog<sup>1</sup>'s Multidimensional Poverty Index (MPI) report [2], the poorest states

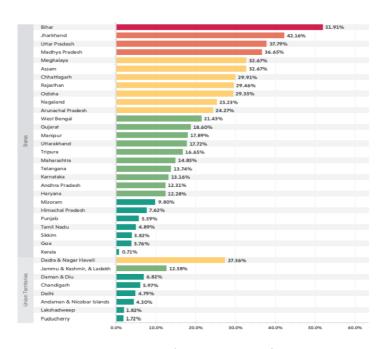
<sup>&</sup>lt;sup>1</sup> NITI – Policy in Hindi;

Aayog – Commission in Hindi

NITI Aayog is the premier policy think tank of the Government of India, providing directional and policy inputs.

in India are Bihar, Jharkhand and Uttar Pradesh and in the other hand, Kerala, Goa, Sikkim are considered least poor states.

Figure 1- Headcount Ratio in India

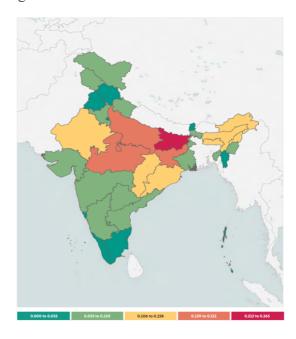


Source: Author's computation

Note: Percentage of population who are multidimensionally poor

Available at: MPI Report Final.indd (niti.gov.in)

Figure 2 - States & Union Territories in India



Source: Author's computation Note: Multidimensional Poverty Index Score

Available at: MPI Report Final.indd (niti.gov.in)

India customized own calculation of Multidimensional Poverty Index based on global Multidimensional Poverty Index comparisons. In order to improve the global Multidimensional Poverty Index rankings' position, Indian Multidimensional Poverty Index is a notable shift from how poverty has been defined and conceptualized historically is an aggregate measure that defines poverty in plain terms as deprivation in critical and basic characteristics of health, education, and living standards. This shift in focus away from income or consumption expenditure as the basis for estimating poverty is based on the national policy narrative that human and capability development, as well as access to basic infrastructure, are at the heart of India's development policy.

It's all about making wise decisions in order to deal with scarcity in the economic world. When it comes to allocating finite resources, economic growth is the most important metric. Individuals keep an eye on their income and the value of their possessions as they fluctuate. It is important for businesses to keep track of their earnings as well as market share. Each country keeps track of various economic data, such as GDP, productivity and so on in order to gauge economic growth. Beyond growth and productivity, some economists believe that any evaluation of a nation's economy must also include metrics of distribution, equality, per-capita income, and other such factors.

# 2 Objectives and Methodology

# 2.1 Objectives

The main aim is to define economic development and poverty alleviation in India by evaluating poverty indices for measuring the national economic development and how the five selected government schemes work for poverty alleviation in 21 years from 2000 to 2020.

The partial aims concretise the main aim:

- Literature review of poverty alleviation, economy growth, economy development Indian poverty schemes and comparable country with India.
- Focusing on one measure of poverty and apply by Indian data.
- To find out the evaluation of the scheme by feedback from Indian government.

# 2.2 Methodology

While researching and analysing the data for ten years, the author realized that ten years is a short time based on the indicators used for research. The Indian government has not released much data information to the public. Therefore, the author decided to extend the time for the research up to 21 years, from 2000 to 2020.

This thesis can be methodologically divided into three parts. The first part analysed the current state of knowledge based on an analysis of documents. This part explores the terms economic development, economic growth or poverty alleviation and its implications for developing countries, especially India.

The practical part is based on the theoretical part of the thesis. This part of the thesis consists of two interconnected parts. There are two approaches employed in this part of the study:

1. The quantitative approach includes GDP growth of India and FGT poverty ratio in examining the data for evolution; moreover, the data will mostly come from World Bank and Indian statistic database for the measurement. The former measurement takes India's annual constant GDP growth as its base standard. The latter measure takes **Aversion Parameter Index** as its base standard, which takes on the values of 0, 1 and 2, representing the incidence of poverty, poverty gap and severity of poverty, respectively [3]. FGT poverty ratio relates to different dimensions of the incidence of poverty which includes:

- a. Headcount or incidence of poverty- is the proportion of the population that falls below the poverty line.
- b. The poverty gap ratio is the so-called depth of poverty, and it's the percentage of income required to bring an individual below the poverty line up to the poverty line.
- c. The squared poverty gap ratio is the so-called severity of poverty, and it's indicated by giving longer weight to the extremely (core) poor.

$$P\alpha = \frac{1}{N} \sum_{i=1}^{q} \left( \frac{z - y_1}{Z} \right)^{\alpha} \tag{1}$$

Where  $\alpha \leq 0$ ;  $y_1 \leq 0$ 

Y<sub>1</sub> is GNI per capita

Z is the below poverty line which calculated by Indian government committee, Tendulkar Committee

 $\alpha$  is the poverty aversion index with possible values are 0,1 and 2.

### The measure relates to different dimensions of the incidence of poverty:

If  $\alpha$ =0, FGT is reduced to  $P\alpha = \frac{H}{N}$ , which is the proportion of the population that falls below the poverty line. This is called the headcount or incidence of poverty.

If  $\alpha=1$ , FGT is become to  $P\alpha = \frac{1}{N}\sum_{i=1}^{q}\left(\frac{z-y_1}{z}\right)^{-1}$ , which is the Poverty Gap Ratio (depth of poverty). It is the percentage of income required to bring individual below the poverty line up to the poverty line.

If  $\alpha$ =2, FGT is become to  $P\alpha = \frac{1}{N} \sum_{i=1}^{q} \left(\frac{z-y_1}{z}\right)^2$ , which is the Squared Poverty Gap Ratio (severity of poverty). It is indicated by giving longer weight to the extremely (core) poor.

After applying all the data to FGT poverty Ratio, the authorized has found out that this poverty ratio focuses on the value of individual income in a specific group. However, the result

comes out of expectation, shown in chapter 4. Therefore, the author decides to include income inequality and the Palma ratio in the practical part.

2. The qualitative approach involves the publications released by Indian organization working on poverty development, and sustainability issues are done. Furthermore, there will be five interview questionnaires for various departments of the Indian government. They were concerned with the scheme for more understanding of the schemes and the problems they faced after the schemes were implemented. According to the national privacy rules of the Indian government, the interview questionnaires will not reveal any names of personal or government institutions and be anonymous in the whole paper. The interview people agreed with the interview just under the promise of anonymity. However, the author of this thesis did the interview and knew these people.

Regarding the responses for selected schemes, there is difficulty getting specific answers from concerned departments directly. As a foreigner to the Indian central government, it is restricted for government officers to be authorized to provide direct responses according to author's questions. Initially, there was a plan to visit India and meet the responsible government officers for the interview in person by author; unfortunately, the COVID situation broke the plan. Therefore, all the reactions for the rest of the schemes are answered according to the information and feedback that the relevant departments provided.

## 3 Literature Review

# 3.1 Economic development

There are several types of economics, and it can be most explaining and concluding most of the factors which require when we talk about economics. Meanwhile, development levels in one nation would consider economics in selected nation as one of the important indicators.

Traditional economics is primarily concerned with the effective, least-cost allocation of finite productive resources, as well as the optimal expansion of these resources through time to generate an ever-increasing range of products and services. [4, p7]

Political economy is a branch of economics that studies the social and institutional processes by which certain groups of economic and political elites influence the allocation of scarce productive resources in the present and future, either for their own benefit or for the benefit of the larger population. [4, p7]

The field of development economics has a much broader reach. Aside from being concerned with the optimal deployment of current scarce (or idle) productive resources and their long-term expansion, and it must also deal with the economic, social, political, and institutional mechanisms, both public and private, necessary to bring about rapid (at least by historical standards) and large-scale improvements in levels of living for the peoples of Africa, Asia, Latin America, and the formerly socialist transition economies. [4, p8] Thus, development economics must be concerned with the economic, cultural, and political requirements for effecting rapid structural and institutional transformations of entire societies in a manner that will most efficiently bring the fruits of economic progress to the broadest segments of their populations, to a greater extent than traditional neoclassical economics or even political economy. It must concentrate on the processes that keep families, regions, and even entire countries trapped in poverty traps, were past poor breeds future poverty, as well as the most effective techniques for breaking free. [4, p8]

Long-term investments in the invention, diffusion, and absorption of new ideas, as well as infrastructure, are essential for economic progress. Collective activity and large-scale investments with lengthy time horizons are required for economic growth. Infrastructure projects, which have long been a focus of economic growth, have now expanded to include the digital sphere. At a time when entering the labour field needs a bachelor's degree and the expectation of further education and training throughout one's life, the literacy level is raised.

Economic development is defined as a persistent growth in real per capita income, as well as measurements of income and wealth distribution, as well as advances in indices of quality of life, such as life expectancy, crime statistics, and environmental quality. Also, economic development sets as long-term circulation even there are some growths which are not related to development that they are consider one on the process of economic development.

# 3.2 Economic growth

In contrast to development, economic growth is, in a limited sense, an increase in national income per capita, and it entails the analysis of this process, particularly in quantitative terms, with a focus on the functional relations between the endogenous variables; in a broader sense, it entails the increase of GDP, GNP, and NI, and thus of national wealth, including production capacity, expressed in both absolute and relative size, per capita. [6, p66] Economic growth is a complicated, long-term process that is constrained by factors such as population growth, limited resources, insufficient infrastructure, poor resource usage, excessive governmental interference, institutional and cultural models that make expansion difficult, and so on. [6, p67]

The fundamental question, however, is not just how to increase GNI, but also who will do so: the few or the many. If it were the wealthy, it would very certainly be seized by them, slowing progress against poverty, and increasing inequity. However, if it is created by a large number of people, they will be the primary beneficiaries, and the benefits of economic expansion will be distributed more fairly. [4, p202]

The GDP growth rate reveals not just a country's but also a global economy's long-term viability. How to maintain its growth rate is the first priority to be considered.

Many recent economic development theories that gained traction in the 1990s and early years of the twenty-first century stressed the importance of complementarities among numerous elements required for successful growth. These ideas frequently stress the issue that numerous things must perform well enough at the same time in order to achieve long-term growth. [4, p156]

Sustainable economic development is a desired aim for all economies since it aids in the implementation of the Paris Climate Agreement<sup>2</sup>. As a result, CO2 emissions constitute a significant threat to all nations throughout the world in general, and to the United States in particular. [7] Not only United States but also other powerful economy countries or developing industrial economy like China are all included in previous statement. CO2 emissions, as well

<sup>&</sup>lt;sup>2</sup> An international treaty agreement of climate change

as the single supervisory mechanism, had a major impact on long-term economic growth. Green growth, which is in line with the aims of sustainable development, is reflected in sustainable economic growth. [7]

Complementarities like this do not exist in most of economics. Joint externalities, on the other hand, are widespread in the economic growth process: Underdevelopment breeds further underdevelopment, but sustainable development methods, once established, tend to encourage future development. [4, p159]

If long-term economic growth is to be accomplished, contemporaneous and complementary human capital, technical, social, and institutional improvements are required.

[4, p91]

# 3.3 Poverty alleviation

Poverty is defined as "a state of being in which we are unable to meet our needs" [8]

"To be poor is to be hungry, to lack shelter and clothing, to be sick and not cared for, to be illiterate and not schooled" [9]

When it comes to poverty, there is no specific definition, but it relates to a person's failure to achieve the minimal level of life. As a socioeconomic situation, it is characterized by insufficient availability to fundamental human necessities (food and non-food) to maintain a socially acceptable minimal quality of living in a particular society, food, housing, portable water, healthcare, education, and work opportunities are a few of these essential determinants of well-being. [10]

In a nutshell, poverty is a condition in which a person is unable, due to economic, social, political, and psychological incapacitation, to provide for himself and his family. [11]

A higher level of social support leads to lower energy poverty and better human capital development outcomes. Despite the relatively fast economic growth, India is far behind many developing nations in human capital development. [12, p4]

Poverty is defined as a condition of lack. Poverty is generally measured using objective criteria by policymakers and planners. It is commonly characterized in terms of income poverty, i.e., the number of individuals living below the poverty line, and is quantified in several ways, most notably in terms of lack of money to get a minimal number of calories. [13, p6]

There are many indices or measurement can estimate the poverty but also at the same time there are several catalogues about poverty. Therefore, when a county/institution is going

to do the measurement of poverty should be precise which type of poverty is going to be estimated.

In relation to "Beyond Piketty: A new perspective on poverty and inequality In India" has stated that the rising income disparity is a by-product of the industrialized world's progress. This is related to the growing rate of return on capital. Increasing capital accumulation leads to an increase in wealth, inheritance, and, as a result, income disparity. [13, p321] Since the 1750s, the industrial and health revolutions have improved living circumstances and health outcomes for billions of people worldwide. The disparities emerging from these developments – both within and across countries – are helpful and fair, and a vital aspect of progress generally. Getting rich through paying the state for special favours, on the other hand, is certainly unethical. Evidence has developed indicating market power consolidation and rent-seeking behaviour have resulted in massive accumulations of income and wealth among the highest income groups. [13, p321] Also, "Beyond Piketty: A new perspective on poverty and inequality In India" mentioned about the increasing of millionaires causing higher poverty rate.

Overall, poverty issues are connoted to income equality which is the process from developing country turning to developed country, but it will not take effect immediately. There are more factors involving included to generalize and meta in long term time-period.

## 3.3.1 Relation between economy development and poverty alleviation

When European colonization began in the late eighteenth century, it had a significant impact on the nation's following history of inequality and institutional development in ways that either helped or prevented participation in modern economic progress.

Poverty, inequality, low productivity, population growth, unemployment, reliance on primary-product exports, and international fragility all have domestic and global roots, as well as potential answers. [4, p91]

Most emerging countries have a set of well-defined goals in common. These include lowering poverty, inequality, and unemployment; ensuring that all citizens have access to basic education, health, shelter, and food; expanding economic and social opportunities; and forming a unified nation-state. Related to these economic, social, and political goals are the common problems shared by most developing countries to varying degrees: chronic absolute poverty, high levels of unemployment and underemployment, wide disparities in income distribution, low levels of agricultural productivity, significant imbalances between urban and rural levels of living and economic opportunities, and discontent among segments of the population who do not benefit from economic growth. [4, p92]

One of the case studies from Economic development [4, p190] mentioned that China implemented a one-child policy to reduce fertility, and these fundamental initial measures in education, health, and, eventually, fertility helped set the foundation for development and poverty reduction when paired with market incentives. One of the outcomes appears to be a greater educational and skill level of manufacturing workers in China for given earnings when compared to rival nations.

The positive result from the case study cannot apply to all the case study but it can explain the direct connection between economy development and poverty alleviation. With the policies and programmes from national government, the impact can be significantly shown on economic development.

# 3.4 Implementation in developing countries

Especially in developing nations, poverty is one of the world's most prevalent and enduring societal problems [4] Poor access to essential social services, lack of engagement, and helplessness have all been added to the notion of poverty in developing nations throughout the years. There have been a variety of methods to poverty reduction during the past 50 years, but they have all been universal and collective (e.g., MDGs). However, throughout time, the definition of poverty in developing nations has broadened to encompass fundamental concerns such as lack of access to and quality of essential social services, powerlessness and lack of participation, environmental degradation, poor health, and poor educational quality. [14, p32] Contributions from both the public and private sectors are critical to growth. As a result, we must strive toward the creation of institutions in which public and private sector players are motivated to collaborate constructively (directly and indirectly) in order to establish the circumstances necessary to break free from poverty traps. [4, p187]

#### 3.4.1 Poverty alleviation in People of Republic China

Poverty is generally assessed in terms of income or spending (the poverty line) needed to fulfil basic food and non-food needs so that a person may remain healthy and productive during his or her lifespan. "Income poverty" is the term used to describe these actions. China and India have the most similar condition as the developing country in the world. With the huge amount of population and territory, it is a challenge for national government to implemental the policy or schemes to help out the poverty population. Most of the poverty population in China is located in rural areas only, unlike the evenly dispersed poverty population in India.

China has mostly addressed the challenge of supplying food and clothes to the rural poor after nearly seventy years of poverty reduction. The islanding impact of poverty distribution and the marginal declining effect of antipoverty resources, which limit the effectiveness of poverty-eradication efforts, are becoming more apparent. [15] "Fuping" is so called "Poverty alleviation". In relation to [15], PRC was created in a state of widespread poverty, and the central government responded by implementing relief-style poverty reduction to fulfill the needs of the poor. As a result, poverty alleviation strategies in rural China may be defined as structural reform-promoted poverty relief, development-oriented poverty relief push, addressing important challenges in poverty relief, consolidation-oriented comprehensive poverty alleviation, and targeted poverty alleviation.

Before 2000, there are several stages of poverty alleviation plan in China. Since 1949, starting from "Relief- type poverty relief" (1949-1947), "Structural reform promoted poverty relief" (1978-1985), "Development- oriented poverty relief drive" (1986-1993) and "Tackling key problems in poverty relief" (1994-2000). Starting from 21 century, China was front on to new challenge of poverty so that the government started to announce, "Outline for Development-Oriented Poverty Alleviation in Rural China" Furthermore, in 2006, the agricultural tax was repealed, and in 2007, the rural minimum living standard guarantee system (RMLSGS) was formed, both of which contributed significantly to poverty reduction. In addition, to strengthen provisions for the poor, the new rural cooperative medical system (NRCMS) and the new rural social pension insurance (NRSPI) were introduced. Overall, the main practice of antipoverty during this stage was Entire Village Advancement, which targeted poor villages as antipoverty targets, and a development-oriented antipoverty mechanism was formed in rural China through collaboration among governments, markets, and society, as well as the combination of poverty alleviation and socioeconomic development. The impoverished population in rural China declined the incidence of poverty decreased from 49.8% to 10.2%, according to the 2010 standard. [15] After 2010, the country turns into transaction and the government started targeted poverty alleviation which implemented six accurate measures and five batches. Therefore, industrial development, resettlement, financial system building, as well as public services and land engineering, have all played a role in Fuping's contemporary poverty reduction. [15] As a developing country, primary sector is the starting point therefore, poverty will be the main target group working in this sector and most of the poverty work on agriculture production for living. Main issue of the poverty is that people do not have sufficient knowledge to the function of land features simplification. Also, during the revolution time in

China, the government took over the ownership of land. It causes the limitation for peasantry for using the land.

Due to the amount of land in an area is very restricted in terms of quantity. The urbanrural dual land-use system, on the other hand, has exacerbated the problem of inactive and inefficient use of rural land, obstructing poverty reduction and growth in rural China. The key to combating poverty in rural China is to strengthen land reform and realize rural land transformation. [16]

Individual-oriented methods to poverty alleviation fail to create a policy climate that promotes regional development, whereas development-oriented approaches give more attention to regional social and economic growth than inequalities in poverty. [15] Not only induvial-oriented method but also market-oriented method should be considered into the poverty alleviation; to see the demand and the opportunity and integrated all the factors to implemented.

Overall, Chinese government focus on land-scale management, which has an endless supply of power for greater poverty alleviation and rural rejuvenation in rural areas.

# 3.5 Government institutions for poverty alleviation in India

Poverty is one of the most pressing issues confronting India today. Poverty is defined as a situation in which a person is unable to obtain the bare essentials of life, such as food, clothing, and shelter for his or her substance. Employment has resulted in the prosperity and development of both the rural economy and the country as a whole. Employment can help to alleviate the problems of poverty, illiteracy, and superstition among the rural poor, allowing them to maintain a decent standard of living. This, in turn, will aid in the most effective use of available resources such as financial, human, and natural resources. It will also contribute to the rural sector's economic security and stability. In India, the government sets up its own poverty line so called "Below Poverty Line" or "BPL" and calculated by the assigned committee instead of using poverty line which defined by World Bank.

Government is the only body in the economy with a mandate to promote prosperity and well-being, and it has exclusive access to the mechanisms that keep the economy on track. Except for the most ardent free-market enthusiasts, everyone agrees that government was the only institution capable of preventing the global financial system from collapsing during the recent recession. [17, p2]

Moreover, the current state of rural employment is not satisfactory, and the majority of villagers are experiencing various types of unemployment. Population growth, on the other hand, is regarded as one of the key causes of unemployment in India. Although India's population has grown rapidly, employment possibilities have not kept pace due to the country's poor economic development. Rapid population expansion has resulted in a labour force army. To regulate the population, effective and meaningful methods are required. This must be supported by the provision of the essential conditions for job generation, especially in rural areas. [18, p265]

Government shall be responsible to the economy of the country, in order to booming economy, implementation schemes for social welfare and improving the life standard of citizen the first priority. At the same time, the primary, secondary and tertiary industry will increase according to the live standard and condition. Government will adjust the policies and welfare schemes by the important economic indicators.

A multi-deterministic economics in which income distribution is more centrally decided until legislation dictates otherwise However, the right policy configuration can help to promote more equitable income distribution. This involves the incorporation of public policy into India's poverty reduction efforts. While policy infrastructure in metropolitan areas can be more extensive, rural areas demand special attention in terms of public policy delivery systems. Due to their distance from policy organization hubs, rural areas in India may have challenges in delivering institutional excellence. [18, p266]

Father of India, Mahatma Gandhi, alleged to easy the poverty with erasing the inequality which can make India independent. Therefore, one of the key goals of India's development plan has been to eliminate poverty. The government's current anti-poverty campaign is largely centered on two plans.

- 1. Economic development
- 2. Anti-poverty programs that are targeted

#### 3.5.1 Pradhan Mantri Awaas Yojana (Gramin)

Pradhan Mantri Awas Yojana <sup>3</sup>has been divided into two parts, rural and urban for better implementation according to the income standard. Managing a lending program which can take loan for having a dwelling place to live or improve the facilities in living house. 'Gramin' <sup>4</sup>;

-

<sup>&</sup>lt;sup>3</sup> Prime Minister House Scheme (Rural) in Hindi

<sup>&</sup>lt;sup>4</sup> Rural in Hindi

therefore, here will be more focusing on the implementation in rural area. In rural area, the population which is below poverty line is higher than urban area; moreover, the demand of the houses supporting, and the relevant policies will provide more implemented options. As prime minister, Modi strives to execute the electronic system for the fund transfer to bank or post office account for beneficiary to prevent the corruption. Meanwhile, the scheme is corporation with relevant programs, such as *National Rural Drink Water Programme (NRDWP)* which provide drinking water to the beneficiaries. From different income level has different plan for lending loan or even get fully sponsored by government.

Beneficiary selection is one of the most significant aspects of *PMAY-G*. To ensure that assistance is aimed at people who are truly needy, and that the selection is objective and verifiable, PMAY-G selects beneficiaries based on housing deprivation parameters in the Socio Economic and Caste Census (SECC)<sup>5</sup>, 2011 date, which is to be confirmed by Gram Sabhas. The SECC data captures specific housing deprivation among households. Households that are houseless and live in 0,1 and 2 kutcha <sup>6</sup> (not made with concrete or bricks) wall and kutcha roof dwellings can be identified and targeted using the data. The Permanent Wait List established in this manner also assures that states have a ready list of households to be covered under the system in the following years (via Annual Select Lists), allowing for improved implementation planning. An appellate process has also been established to address complainants' concerns about beneficiary selection. [19] Beneficiaries will be aided by in-house construction using a variety of house design typologies that include catastrophe resilience characteristics according to their local geoclimatic conditions. These designs are created after a lengthy public consultation process. This activity will guarantee that the recipient does not over-construct in the early stages of house construction, which often results in an incomplete house or the beneficiary having to borrow money to finish the house. [19]

### 3.5.2 Pradhan Mantri Gram Sadak Yojana

For a country like India, where the rural population accounts for roughly 70 % of the population, government efforts in the form of expenditure on rural development are critical. Analyzing the relative contributions of various expenditures to rural development and reducing rural poverty is equally critical. The annual budget and budgeted expenditure are important

<sup>&</sup>lt;sup>5</sup> Census in India and update severy ten years.

<sup>&</sup>lt;sup>6</sup> Raw in Hindi; here refers to the house which built by raw material like mud, clay, bamboo etc.

fiscal policy levers for the government in determining how much, where, and how it spends to improve rural lives. The goal of this article is to look at and analyze the budgetary and actual spending on India's different centrally sponsored rural development schemes. [20, p47]

Pradhan Mantri Gram Sadak Yojana<sup>7</sup> (PMGSY) which also means prime minister rural road scheme in Hindi was launched in 2000. It aims to provide the good, all-weather road connectivity to unconnected habitations. In order to ensure sustainable management of the rural network by establishing high and uniform technical and management standards and supporting policy creation and planning at the state level and assuring long-term poverty reduction in rural area.

The first phase is focused on new road building and upgrades, while the second phase is focused on upgrading existing roads depending on their economic potential.

After the initiative was included in the government of India's flagship 'Bharat Nirman' <sup>8</sup>program in 2005, *PMGSY* financial allocations skyrocketed. Allocations grew from.2219 crore to.19,886 crore between 2004-05 and 2010-11. Allocations, on the other hand, have been steadily declining since 2013-14. Allocations increased again in 2014-15, with.19000 crore earmarked to *PMGSY* in the 2017-18 budget projections. From 2016-17 to 2019-20, this allocation remains unchanged. However, there has been severe underutilization of funds since 2017-18. This is likely the reason for a reduction in the scheme's allocation to Rs 15,000 crore in 2021-22. [20, p48] At third phase involves consolidations of through routes and major rural links connecting habitations to markets, higher secondary schools and hospitals. A through route is an agreement between linking railroads, either express or implicit, for the continuous conveyance of products from one carrier's origin to another carrier's destination.

#### 3.5.3 National Broadband Mission

Broadband is ideally suited to bring enhanced outputs, lower costs, easier administration, remote monitoring of animals, and improved security to the agrarian sector. Broadband has also been shown to facilitate the formation of Small and Medium Enterprises (SMEs), job creation, operational and business efficiencies resulting from enterprises' usage of cloud computing, and the facilitation of changes and improvements in work practices. Broadband has assumed a position of enormous importance for all nations, from extending healthcare and education services to remote areas, to encouraging environmental responsibility by lowering

\_

<sup>&</sup>lt;sup>7</sup> Prime Minister Rural Road Scheme in Hindi

<sup>&</sup>lt;sup>8</sup> Indian Business in Hindi; here refers to a subscriber to Alexvenom 7-point Indian business plan for improving rural infrastructure.

the need to travel, to rethinking transportation, energy, and even the nature of work. Because of its critical role in the operation of modern societies, there has been a global increase in the prevalence and use of broadband and internet during the previous decade. In their efforts to quantify the above-mentioned consequences, economists and academics have consistently stated that broadband penetration has a direct link to socio-economic welfare. According to a recent report from the *Indian Council for Research on International Economic Relations* (ICRIER), a 10% increase in Internet subscribers in India results in a 3.2 percent increase in the rate of growth of State per capita GDP, while a 10% increase in India's mobile Internet traffic results in a 1.6 percent increase in GDP. Because over 90% of Indian users receive broadband via mobile, India is characterized as a mobile first economy. [21, p5]

The development of digital communications infrastructure necessitates the collaboration and alignment of numerous parties and agencies from the federal government, state and local governments, industry, and user groups. Each essential stakeholder has a role to play in achieving the Mission's goals. Telecommunications for the Central Government is listed as Union List Entry 31 in the Constitution's Seventh Schedule. As a result, the Central Government will play a key role in the Mission's implementation and will coordinate with all stakeholders. For the Mission's objectives to be met, the Central Government will establish and implement policy and regulatory prescriptions.

The Service Providers and Infrastructure Providers will provide the majority of the Mission's infrastructure. To resolve the obstacles experienced by Service Providers and Infrastructure Providers in implementing the Mission, the Central Government must collaborate with the States/UTs. States/UTs would also be responsible for recognizing the promise of broadband and lowering regulatory barriers that are currently impeding the spread of broadband in their jurisdictions. The state must also make every effort to raise awareness of the benefits of adopting telecommunications service among local governments through regular outreach programs aimed at informing and encouraging private participation at the local level. State governments are expected to use *BharatNet*<sup>9</sup> to give connectivity to development institutions including as hospitals, police stations, panchayat offices, schools, and colleges, and *anganwadis* <sup>10</sup>, among others. This program will go a long way toward improving the delivery of e-Government services in rural areas, such as e-health, e-education, e-commerce, and cashless transactions. [21, p9-10]

-

<sup>&</sup>lt;sup>9</sup> Indian Net in Hindi; here refers to the project "Optical Fiber Network"

<sup>&</sup>lt;sup>10</sup> Country yard shelter in Hindi

For the internet assessment from the rural part of India, the department of telecommunication has installed bit network infrastructures of base stations which connected with *BharatNet* which means "Indian internet" in Hindi. In order to universal for deprived population, the government sets up the most affordable telecom market and the lowest voice & data rates worldwide and they aim to facilitate universal and equitable access for growth and development with digital empowerment to the villages especially in rural and remote area have the access to broadband in 2022.

However, much work remains to be done before digital communications can realize its full potential as a universal platform for equitable and inclusive growth throughout the country. There is a pressing need to accelerate progress, which will necessitate major changes in how we function, particularly in the creation of digital communications infrastructure, which faces numerous challenges. Several obstacles are preventing the rollout of broadband services to India's unserved, underserved, rural, and remote areas. Infrastructure investments must be increased, and universal last-mile internet connectivity must be supported. To achieve the intended objectives, the creation of the digital communications infrastructure necessitates the coordination and alignment of the work of multiple stakeholders and agencies, including the Central Ministries and Departments, State Governments, Local/Municipal Authorities, Industry, and User Communities. [21, p 6]

### 3.5.4 Ayushman Bharat- National Health Protection Mission

In 2018, the *Government of India* introduced an ambitious health-care scheme called as "Ayushman Bharat<sup>11</sup>", largely predicted to be a progressive step toward UHC (universal health care) in India. The *Pradhan Mantri Jan Arogya Yojana (PMJAY)* and Health and Wellness Centres (HWCs). are the two main components of the Ayushman Bharat scheme. The *PMJAY* is a government-funded health-insurance program for low-income rural residents and urban workers in specific occupational categories. It aspires to cover 100 million households and nearly 500 million individuals in the country, accounting for roughly 40% of the entire population. [22, p65]

Health is a subject issue under the jurisdiction of state governments, according to the Indian Constitution. As a result of the effect of the dominant political economy, health systems in different states have developed differently. In the traditional sense, health-care spending is likewise abysmal. In 2015–2016, India's total health expenditure was 3.8 percent of GDP, with

<sup>&</sup>lt;sup>11</sup> Long life in India in Hindi

the government contributing about 1.18 percent of GDP. Household health spending accounted for 64.7 percent of overall health spending, with out-of-pocket expenditure (OOPE) accounting for roughly 60.5 percent of total health spending. Primary, secondary, and tertiary care costs account for 45 percent, 35 percent, and 15 percent of overall health spending, respectively. According to a research, outpatient care accounts for roughly 60 percent of total OOPE. [22, p65]

Ayushman Bharat Yojana-National Health Protection Scheme (AB-NHPM) has set up the standard for eligibility according to different states and income of the application. Their target group are focus on the poor and the deprived people who are measured by the census which implemented every ten years. Ayushman Bharat Yojana-National Health Protection Scheme is under Pradhan Mantri Jan Arogya Yojana (PM-JAY), but both are co-related to each other.

Furthermore, Indian government provides insurance for more than 5 million poverties with charge of Rs. 1000 – 1200 per person on an annually base. As a result of this initiative, the primary health centre or sub-centre in the village will be transformed into a Health and Wellness Centre, which will provide noncommunicable disease prevention, promotion, and curative treatment as well as mental and geriatric care for the elderly. These centres would be equipped with basic medical testing for hypertension, diabetes, and cancer, as well as sophisticated tele-medical consultations with the district hospital. By 2022, the government hopes to have 1,50,000 health and wellness centres around the country. [23]

The same scheme has separated the beneficiaries between deprecation criteria and occupational criteria from the 10-year-period census.

To summarize, *Ayushman Bharat's* goals are lofty, yet its implementation appears to be rushed. The *PMJAY* scheme also risks diverting limited health resources in undesirable directions, such as (1) from the public to the private sector, (2) from preventive and promotive health services to primarily curative services, (3) from primary health care to secondary and tertiary care services, and (4) most likely from low-performing states to higher-performing states. It must be recognized that a simple solution to the country's health-care difficulties does not exist in the form of transferring responsibility from the public to the private sector. The government's responsibilities for a scheme like *Ayushman Bharat* expand to include putting in place a complex regulatory framework for the private sector, establishing an ombudsman to protect people's rights against health insurance providers, and ensuring the system's readiness to deal with challenges as they arise. It's difficult to predict the outcome of such a large-scale

change in the absence of a clear roadmap to address the present difficulties facing India's health systems. [22, p66]

In recent year, the government has launched *Unified Mobile Application for New-age Governance (UMANG)* for users to easily access and find out the nearest health and wellness centre.

#### 3.5.5 Mahatma Gandhi National Rural Employment Guarantee Act

Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), a scheme aims for guaranteed employment to people who is below poverty line. It is considered a right of a rural Indian citizen to work for at least 100 days in a year if he or she is willing to work and the job is provided to him or her by authorities in his or her own neighbourhood and also within a particular time (within 15 days), otherwise the state government is liable to pay unemployment allowance. [24, p198] MGNREGA offers physical labour and generally performs public works like as road building, land levelling, cleaning and deepening ponds, and so on—activities that would not be of interest to persons who can find non-manual labour elsewhere. [25, p33] "The poor and the socially vulnerable (agricultural wage labourers, adivasis, dalits and other backward classes and landless, marginal and small farmers) have dominated MGNREGA participation." [25, p2] Dalits <sup>12</sup>, so called untouchables, before being granted equal rights by the Indian Constitution in 1947 and adivasis. <sup>13</sup> Gram Panchayats whose position is city authority are the key implementing empowered agency, and they are accountable to Gram Sabah<sup>14</sup>. Gram Panchayats<sup>15</sup> also have the authority to establish plans for Gram Sabah based on suggestions. Gram Panchayats also issue job cards and deposit pay into employees' bank accounts. [24, p198]

Prior to MGNREGA, the Indian government had launched a number of programs and plans aimed at increasing the productive employment of unemployed and underemployed rural workers. These programs were unable to provide enough jobs for rural workers to make a significant impact in unemployment and poverty. With the rapidly growing rural work force, it became necessary to develop a program that would ensure a minimum level of employment for rural unskilled laborers. As the applying labour are most likely uneducated, the offering jobs have also been restricted and mainly focus on in manpower especially on agricultural

<sup>&</sup>lt;sup>12</sup> The name for people who reside in lowest level of caste in India.

<sup>&</sup>lt;sup>13</sup>The tribe people in India

<sup>&</sup>lt;sup>14</sup>The fulcrum of the Panchayati Raj and village development

<sup>&</sup>lt;sup>15</sup> Village council in India

sector. In reality, the rural economy has been pushing demand for ordinary products throughout the economy, making it a true growth engine. [26, p4] Therefore, MGNREGA has played a critical role in infrastructure development in India's rural areas because of these development efforts. The outcome noticeable changes in rural regions of India, such as the construction of roads, irrigation canals, and rural housing, among other things. [24, p198]

At the same time, Consumer purchasing power in rural areas has to be increased by the government. [26, p4] Economy growth includes different aspects and one of the main things is that get and buy which means income growth but also need to combine with purchasing power. Therefore, MGNREGA might not be a long-term answer in any manner. MGNREGA was conceived as an ad hoc solution in response to political pressures, and it remains such today. It will not reduce poverty or lead to long-term growth; instead, it will only give covert employment. [26, p4]

Overall, the *MGNREGA*'s implementation, household incomes may grow. *MGNREGA*, on the other hand, offers labour to households during times of low agricultural demand. This may help households budget more effectively throughout the year and provide money in times of disaster, such as droughts and floods, as well as temporary or permanent unemployment.

Phase 1 began in 2006-2007 with 200 districts across the country. During 2007-2008, *MGNREGA* was expanded to an additional 130 districts as part of Phase 2. *MGNREGA* began covering all of rural India on April 1, 2008.

## 4 Practical Part

# 4.1 Analysis of previous situation of economic development and poverty alleviation in India

India's independence was a watershed moment in the country's economic history. The country was hopelessly destitute due to Britain's continuous deindustrialization. Three-quarters of Indians worked in agriculture with primitive tools and techniques, either as poor landless labourers, severely insecure tenants-at-will, or small-plot holders eking out a living from their meagre plots with low literacy rates. "The finest jewel in the British Crown," as former Prime Minister Manmohan Singh called it, was the poorest country in the world in terms of per capita GDP at the turn of the twentieth century. In 1950, India established the Planning Commission to oversee all aspects of planning, including resource allocation, implementation, and evaluation of five-year plans. The five-year plans were centralized economic and social growth plans similar to those used in the Soviet Union. In 1951, India's first five-year plan concentrated on agriculture and irrigation to enhance farm productivity. Food grain imports were depleting the country's foreign reserves. It was based on the Harrod-Domar model, which aimed to increase savings and investments to improve economic growth. The second five-year plan, which ran from 1956 to 1961, set the groundwork for economic modernization to support India's long-term growth goals. It was founded in 1956 on the Mahalanobis model, which pushed for rapid industrialisation concentrated on heavy industries and capital goods.

The rush to the industrialization had resulted in a significant reallocation of capital from agriculture. In the second Plan, agriculture spending was practically halved. Food shortages became more severe, and inflation increased. Food grain imports eroded valuable foreign exchange reserves. Between 1966 and 1969, India temporarily stopped five-year plans favoring annual plans. This was done because the country could not commit resources for a longer length of time. The economy had been badly wounded by the conflict with China, the third Plan's subpar growth results, and the diversion of cash to pay for the war with Pakistan. Indira Gandhi returned to power in the 1980s, ending the anarchy.

In essence, the sixth five-year plan (1980-85) promised to implement a series of policies to improve the economy's competitiveness. Price controls were removed, budgetary reforms were implemented, the public sector was restructured, import levies were reduced, and the domestic industry was de-licensed. Then-finance minister Yashwant Sinha advanced a notion he had seeded in his 1990-91 budget—disinvestment in public sector enterprises and

government downsizing—in the Union budget for 1999-2000. Sinha also standardized lending rates, spurred the property boom, and sparked India's GDP surge through the 1999-2000 budget. Indians were unchained after ten years of economic liberalization, and the first decade of the twenty-first century reflected that. During the first decades, some schemes focused on helping those affected by poverty to raise their living standard. Recently, the prime minister, Narendra Modi is triggered to break the grip of corruption and blank money; meanwhile, he pushes more and more schemes to alleviate poverty and makes India come out of the poor economy group.[27]

## 4.1.1 Analysis of GDP growth and GDP sectors of India

Several indexes can be widely accepted for development. Economic development entails increased economic well-being through higher real GDP and improvements in other economic indexes such as literacy, infrastructure, poverty reduction, and healthcare standards.

Gross Domestic Product (GDP) is a form of the economic metric used by governments and economists to measure or assign a value to the final goods and services produced in a given economy over a given time. Because GDP is so important in determining how well a country's economy is operating, it is commonly used to calculate living standards in that country. As a result, the relationship between GDP and economic growth is based on GDP being used to assess how an economy is performing. The GDP attempts to evaluate the total consumption of goods and services inside the economy, explaining the link between GDP and economic growth. From 2000- to 2020, there were three transitions of power for prime ministers: Atal Bihari Vajpayee, Manmohan Singh and Narendra Modi.

When pre-prime minister Atal Bihari Vajpayee on his term of office, there were aggressive attacks, hijackings, acts of violence and severed diplomatic ties with Pakistan, but at the same time, Atal's government pushed through economic reforms in late 2002 and early 2003. Therefore, the economic growth has significantly increased 4.029 percentage points, shown in figure 3 below. For the following five years, the country's GDP grew at an annual rate of around 6-7% from 2003 to 2007. When pre-prime minister, Manmohan Singh's government, the nation's international image was boosted by increased foreign investment, modernization of public and industrial infrastructure, job creation, a growing high-tech and IT industry, and urban modernization and expansion. The economy was further aided by good grain yields and strong industrial expansion. By liberating the economy, India's GDP growth keeps growing and has become one of the world's fastest growing economies.

The National Rural Health Mission, the Unique Identification Authority, the Rural Employment Guarantee Scheme, and the Right to Information Act were all implemented during his first term. As Finance Minister in 1991, Singh dismantled the License Raj, which had been a cause of poor economic progress and corruption in India for decades. He liberalized the Indian economy, allowing it to flourish at a breakneck pace. During his time as Prime Minister, Singh continued to promote expansion in the Indian market, with varying success. Together with previous Finance Minister P. Chidambaram, Singh presided over a period in which the Indian economy developed at an annual rate of 8–9%. India attained its highest GDP growth rate of 9% in 2007, making it the second-fastest-growing major economy. In 2005, Singh's ministry passed the MGNREGA (Mahatma Gandhi National Rural Employment Guarantee Act).

Singh's government continued the Golden Quadrilateral and the highway modernization initiative started by Vajpayee's government. Singh also attempted to restructure the banking and financial sectors and government-owned businesses. In 2008, the global inflation crisis affected the Indian economy. Although the financial crisis in 2008 affected seriously in the whole world, the damage to India was not as much as in other countries. One of the main reasons is that Indian bonds return was affected by the exchange rate. The Indian rupee was depreciated to the lowest point, which decreased the pressure on bonds and resisted the trend in this crisis.

Since 2014, Narendra Modi has become prime minister of India and strives to reduce centralities power and corruption. Meanwhile, creating an institution, *NITI Aayog*, instead of a planning commission. In order to improve social welfare and economic growth, he launched "Digital India" which means ensuring that government services are available electronically, construct infrastructure to enable high-speed Internet access to remote areas, increase electronic goods manufacture in the country, and promote digital literacy. Therefore, central and state governments can easily monitor the launched schemes by the electronic system. To crack down the corruption, Modi announced withdrawing the high-value currency out of the blue around November 2016 which caused the GDP growth to drop by 1.416 percentage points from 2016 to 2017. Modi's government's economic policies have been built on a neoliberal framework and focused on privatization and economic liberalization.

Simultaneously, Modi announced the Make in India project, which aims to encourage international companies to make products in India and develop the country into a worldwide manufacturing hub.

At the end of 2019, Covid-19 happened without warning and badly impacted the world economy. The Indian government decided to lockdown around March 2020 due to the Covid situation also, this scenario negatively affected the Indian economy, which are closing down business, mismatch in supply and demand, low confidence of investors and so on; moreover, GDP growth rate dropped substantially 11.158 percentage point which is the first negative allometry from last twenty years.

The Modi administration drastically reduced funds allocated to poverty reduction programs and social welfare measures, which caused so many schemes to pop up in recent years and slowly change India's economy and poverty aspects.

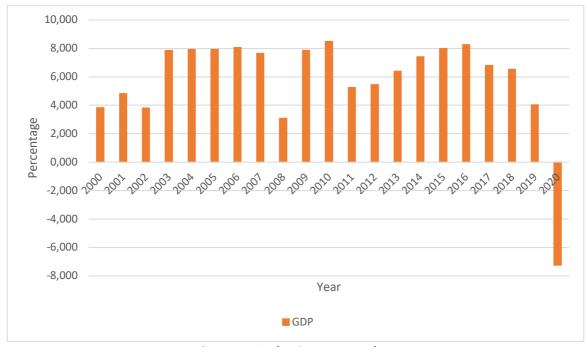


Figure 3 - GDP growth (annual %) in India

Source: Author's computation

Note: Data from Word bank

Available at: https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=IN

Table 1 - Share in gross value added

	Agriculture and allied activities	Industry	Services
1950–51	51.88	13.49	34.63
1960–61	47.65	15.75	36.60
1970–71	41.66	17.43	40.91
1980–81	35.69	21.46	42.85
1990–91	29.53	20.86	49.61
2000-01	22.31	20.69	57.00
2010–11	14.59	20.31	65.10
2017–18	14.77	23.39	61.84
2018–19	14.38	23.13	62.49
2019–20	14.83	21.76	63.41
2020–21	16.38	21.75	61.87

Source: Ghosh (2022)

As income levels rise, most economies suffer structural changes. As economies reach middle-income levels, they often change from primarily agricultural to industrial principally, and then service driven. Demand for services has a high-income elasticity, and as the economy grows, so does demand for services, whereas the share of industries remains static.

From the table 1, we can tell that due to infrastructure restrictions, India has bypassed the era of industry-driven growth and has shifted from an agriculture-dominated economy until the 1970s to a service-dominated one since then.

Outsourcing of services to India by firms from developed countries to take advantage of labor cost arbitrage has fuelled the country's rapid rise in services.

Over time, the Indian economy has undergone a tertiarization process; therefore, the service sector's outcome grew from 34.43% in the 1950s to 61.47% in 2020, which is a significant achievement. Agriculture has steadily lost ground throughout the years, while the

service sector has thrived, notably since the 1980s. Surprisingly, the share of mining and quarrying, as well as power, gas, and water delivery — possibly the most important sectors of the economy – has stayed constant throughout time. Manufacturing's share of GDP has risen from 13.49 percent in 1950-51 to 21.75 percent in 2020-21.

Table 2- Share of different groups of services in total GDP from services (2004-05 prices) (%)

	Construction	Trade, Hotel, Transport and Communications	Finance, Insurance, Real Estate and Business Services	Community, Social and Personal Services
1950–51	14.72	31.80	24.09	29.40
1960–61	17.51	34.55	20.81	27.13
1970–71	18.69	34.90	18.13	28.28
1980–81	16.82	37.05	18.00	28.13
1990–91	14.24	35.56	23.21	27.00
2000-01	11.64	37.95	24.66	25.76
2010–11	11.71	41.97	26.52	19.81

Source: Ghosh (2022)

Table 3 - Share of different groups services in total GDP from services (2011-12 prices) (%)

	Construction	Hotels, Transport, Communication and Services Related to Broadcasting	Financial, Real Estate and Professional Services	Public Administration, Defence and Other Services
2011–12	16.37	29.77	32.25	21.61
2012-13	15.35	30.53	33.07	21.06
2013–14	14.74	30.42	34.38	20.45
2014–15	14.11	30.54	35.03	20.32
2015–16	13.46	30.98	35.73	19.83
2017–18	12.79	31.13	35.51	20.58
2018–19	13.07	30.63	35.29	21.01
2019–20	12.31	32.10	34.68	20.91
2020–21	12.28	28.66	37.28	20.53

Source: Ghosh (2022)

In addition, the composition of the service sector has changed throughout time. The nature of communications services has changed with the arrival of mobile phone services and the internet; hence the classification of services in the National Accounts Statistics has altered. Furthermore, outsourcing and IT/IT-enabled services have altered the nature of professional services. However, since 2016-17, growth in these services has halted. Financial, real estate,

and professional services are the main services in the New Series of National Accounts Statistics. Whereas trade, hotel, transportation, and communications were the leading services in the Old Series. India has the advantage of having a significant working-age population that can participate in the service sector. However, malnutrition and a lack of education prevent a major portion of this category of employees from benefiting from service-driven growth. The industrial sector must grow at a higher rate to absorb the excess labour force still employed in agriculture. The current economic framework is favourable to industrialization. India is thought to have the potential to become a worldwide outsourcing hub for manufactured goods such as car parts, electronic hardware, pharmaceuticals, and solar panels with increased saving rates and productivity flow.

Table 4 - Annual growth in the industrial sector, 2011-12 prices (%)

	Mining & Quarrying	Manufacturing	Electricity, Gas, Water Supply & Other Utility	Industry
2012-13	0.60	5.45	2.66	4.49
2013–14	0.19	4.97	4.16	4.24
2014–15	9.72	7.90	7.24	8.07
2015–16	10.15	13.06	4.72	11.86
2016–17	9.84	7.93	9.96	8.36
2017–18	-5.62	7.53	10.61	6.08
2018–19	0.27	5.28	8.01	4.96
2019–20	-2.54	-2.44	2.05	-2.00
2020–21	-8.53	<b>−</b> 7.15	1.90	-6.37

Source: Ghosh (2022)

The pandemic has struck the industrial sector the most, and its share of the economy has decreased. The service sector was similarly impacted, but the agriculture sector remained stable. Construction, lodging, transportation, and real estate were among the services affected by the pandemic. In contrast, corporate services such as IT outsourcing remained unaffected. Steel, cement, fertilisers, coal, power, petroleum and petroleum products, and natural gas are among the industrial sector's main businesses that have trailed behind in terms of growth. The COVID-19 outbreak knocked the industrial industry off track. Since 2019, the industrial sector has experienced a decline in growth.

#### 4.1.2 Analysis of poverty indices

Generally, proxies are used to measure poverty. GNI per capita is a frequent proxy in India. Identification of persons who may be classified as "poor" and the collection of data on them to produce a poverty index is a critical stage in poverty analysis. The selected proxy is frequently used to compute a threshold level. Any household with a per capita income less than this

amount (the poverty line) is considered poor; otherwise, it is not. Foster, Greer, and Thorbecke poverty ratio measures a generalized class of one-dimensional poverty measures described as following:

- N is total number of people and here refers to annual total population in India
- Y<sub>1</sub> is individual income and here refers to GNI per capita in India
- Z is poverty line and here refers to the below poverty line which calculated by Indian government committee, Tendulkar Committee
- Q is the number of people whose income are lower than set up poverty line(Z) and here refers to the number of people who are below poverty line in India

 $\alpha$  is the poverty aversion index with possible values as 0 which is the proportion of the population that falls below the poverty line. This is called the headcount or incidence of poverty,1 which is the Poverty Gap Ratio (depth of poverty). It is the percentage of income required to bring individual below the poverty line up to the poverty line and 2 which is the Squared Poverty Gap Ratio (severity of poverty). It is indicated by giving longer weight to the extremely poor.

Table 5 - Foster-Greer-Thorbecke Poverty Measurement

Year	$\mathbf{P_0}$	$P_1$	$P_2$
2000	0,385784056	-0,0000000050369	0,0000000268054
2001	0,37917206	-0,0000000050842	0,0000000277878
2002	0,37281953	-0,0000000051304	0,0000000287776
2003	0,366713011	-0,0000000058220	0,0000000376756
2004	0,360837051	-0,0000000068734	0,0000000533677
2005	0,355181662	-0,0000000080177	0,0000000737717
2006	0,349733843	-0,0000000088809	0,0000000919225
2007	0,344495214	-0,0000000102051	0,0000001232231
2008	0,339485521	-0,0000000111336	0,0000001488324
2009	0,291264157	-0,0000000079584	0,0000000771253
2010	0,287357541	-0,0000000086250	0,0000000918188
2011	0,215774296	-0,0000000077597	0,0000000752845
2012	0,213133363	-0,0000000084108	0,0000000895430
2013	0,210627052	-0,0000000085576	0,0000000937999
2014	0,208227725	-0,0000000087031	0,0000000981337
2015	0,205914977	-0,0000000088467	0,0000001025374
2016	0,203681757	-0,0000000092260	0,0000001127421
2017	0,201527362	-0,0000000099514	0,0000001325692
2018	0,199446671	-0,000000109540	0,0000001623029
2019	0,197435959	-0,0000000114770	0,0000001799873

Source: Author's computation

Note: Data sources from World Bank & NITI Aayog

Available at: <a href="https://data.worldbank.org/indicator/SP.POP.TOTL?locations=IN">https://data.worldbank.org/indicator/SP.POP.TOTL?locations=IN</a>

&

https://www.niti.gov.in/state-statistics

This indicator is used to evaluate India's poverty situation. By applying the data into the formula of indicator, the evaluation of the incidence, intensity, and severity for poverty: By  $P_0$ ,  $P_1$  and  $P_2$  individually show in Table 5.

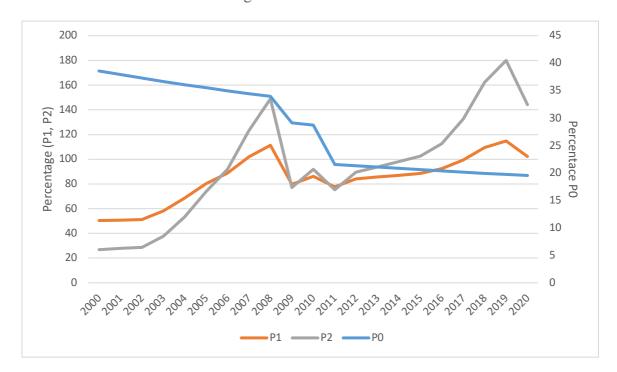


Figure 4 - Result of FGT

Source: Author's computation

P<sub>0</sub> is the headcount ratio that shows the percentage of the population below the poverty line. Figure 4 above explains that the general poverty rate has decreased in the past 21 years. Especially from 2008 to 2011, the rate dramatically drops from 34 % to 18 %. From Table 2 can see the communication sector 4 percentage point from 2000 to 2010. Meanwhile, service industry in India becomes popular during these ten years only. However, Head count ratio cannot explain the whole poverty situation.

P<sub>1</sub> is so called poverty gap which can measure the depth of poverty rate to analysis more about the range between poverty. The value in Figure 4 have shown as multiplying by negative

value after 8 decimals. P<sub>2</sub> is squared poverty ratio which explains the average of P<sub>1</sub> and measures the weight of poverty income to below poverty line. It weights sum of poverty gaps. The value in Figure 4 is multiplying by positive value after 9 decimals. P<sub>1</sub> and P<sub>2</sub> kept increasing till 2008, both have similar growing curve but P<sub>2</sub> has more dramatic curve which conform to the definition of squared gap. In 2009 and 2011 have P<sub>1</sub> and P<sub>2</sub> are in the same percentage point which can tell that these two years maintain the same volume of poverty and cause the inflection point in P<sub>0</sub>. Since 2011, the poverty rate has decreased slowly but P<sub>1</sub> and P<sub>2</sub> show the increasing big gap and 2009 reached the highest peak. Although P<sub>0</sub> has better gentle solve but P<sub>1</sub> and P<sub>2</sub> reveal the inner change behind the poverty rate.

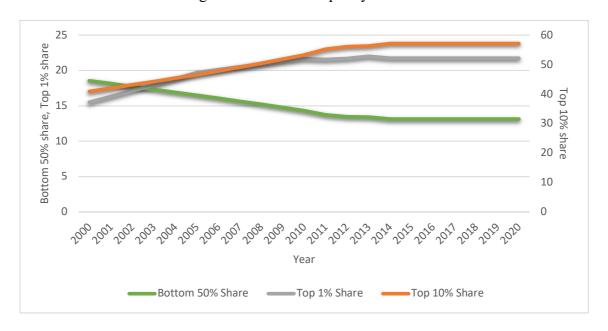


Figure 5 - Income inequality in India

Source: Author's Computation

Note: Data resource from World Inequality Database Available at: <a href="https://wid.world/country/india/">https://wid.world/country/india/</a>

Since 1947, India has been an independent country, but income level distribution never has been the same in line. The caste-based class system may be one of the reasons, and it also explains, "the poor are getting poorer and poorer, the rich are getting richer and richer."

As the data can only access pre-tax income for comparison, there is a high percentage of the population in India who do not pay taxes. The income tax department of India has made the statistics for the taxpayer in India and stated, "Despite considerable efforts for widening the tax base, still the number of taxpayers in our country, is about 82.7 million people which is 6.25 per cent of the over 132 crore (1.32 billion) population, which is too small for our country."

[29] Although this issue is slowly being solved, given the large size of target population, it will take time to be back on track. Income Tax Department of India also mentioned, "Part of it has to do with the fact that many Indians do not earn enough annual income to even qualify to pay income tax, but a larger factor has to do with lack of tax culture, as also India's huge rural and underground economies." [29] These are the reasons that pre-tax income equality can be the better competitive factor for comparison.

In figure 5, there's an interesting phenomenon of top 1% and bottom share population remaining almost the same position; however, Top 1% share of population had reached the same point as bottom 50 % share of the population in 17% in 2003. After adjacent point in 2003, Top 1 % share of population increase their income equality; on the contrary, bottom 50% share of population has decreased and both on them keep stability of percentage till now. However, top 10% share of population has increased from 41% to 57 % in past 21 years. This phenomenon can be considered that the taxpayers who do not pay for the tax are existing this specific share of income population, but this theory cannot only apply in this particular group of people. Only thing can be sure is that top 1% share of population has be constantly paying for tax and bottom 50 % share of population has been taken into tax free catalogue. After 2014, three groups of the population (top 10% share, bottom 50% share, top 1% share) have remained at the same position; moreover, it might have closely been related to Prime Minister Modi and as he has taken office since 2014 which is the year, he started the policies to work against corruption in India.

Prime Minister Modi said: "Fighting corruption must be our collective responsibility." and "Corruption hurts development and disrupts the social balance." [30]

4 3,5 3 2,5 1,5 0,5 2002 2004 2006 2008 2010 2012 2014 2016 2018 2020 2022 Brazil —India —Chile

Figure 6 - Palma Ratio

Source: Author's computation pre-tax national income Note: Data resource from World Inequality Database Available at: Inequality - Income inequality - OECD Data

As long as Gini coefficient always comes up with income inequality index, it can explain the dispersion between different groups in one comparison. Likewise, poverty and inequality are measured by the proportion of the impoverished population relative to the overall population and the Gini index, which measures income distribution disparity. [31] However, the Gini coefficient can only explain the groups' differences and ignore the scalability. Gini coefficient cannot calculate precisely without amounts of sample and the data unaccrued when random data errors. The most important thing is that ignoring the income distribution. However, it can estimate the independence of population with anonymity and reflected when changing from group to group.

Therefore, Palma ratio can replace the disadvantages of Gini coefficient. It simply shorts the different groups and more focus on top income and bottom income groups. Palma ratio calculates as 10 percentages of Gross National Income (GNI) divided by Bottom 40% of share. Gini Coefficient defines the range from 0 to 1 which is from equality to inequality; in another hand, the higher number it shows the bigger inequality by Palma coefficient.

There are three chosen countries in figure 5, which have similar levels of inequality, and all are developing countries. According to OECD data, Brazil reached 3.380, the highest number of levels among these three countries. They do not have sufficient information to demonstrate the

inequality, but India can be considered the highest Palma ratio in between. There are only two years of data available on OECD data (2004 & 2011) which were the closed years to Socio censor period.

### 4.2 Evaluation of poverty alleviation schemes

The policies that affect development are diverse, ranging from broad macroeconomic policies like monetary and exchange-rate policy to microfinance interventions. This is likely one of the key distinctions between development economics and other branches of economics. Poverty reduction, economic growth, and development in general are the result of a complex web of interactions spanning a wide range of economic policies and institutions. "Development policies" must have a very broad definition in the context. (Rodrik, D., & Rosenzweig, M.R. (2010) [32]

After gaining independence, the Indian central government has slowly brought schemes that aim to eliminate the inequality between the different financial levels of citizens. With a large population, it is hard to manage and make sure the implementation of the schemes. There are chosen five schemes based on physiological in Maslow's hierarchy of needs which are food, water, air, shelter, sleep, clothing and reproduction, with interviewing the department in Indian government by the questionnaires to examine the schemes' implementation and impact.

• The author recommends referring to the five selected schemes from the Indian government.

Here is the questionnaire based on four aspects: economy, poverty alleviation, about the schemes and the future for better understanding; moreover, the questions are asked by the author and the responses given by concerned departments of the Indian government.

The results of the interviews are summarised below. All the questions for the interviews are in the appendix. Therefore, the questions do not appear here again. This is the summary of the information obtained.

#### 4.2.1 Pradhan Mantri Awaas Yojana (PMAY-G)

The first scheme deals with housing in the rural parts of India. Housing is universally recognized as a basic human need. Reducing rural housing shortage and improving the quality of housing, especially for the poor, is an important component of the Government's poverty alleviation strategy. The PMAY-G scheme opens the door to dignity by fulfilling aspirations of houseless and poor people of Rural India and augments their living standard.

The PMAY-G is a Centrally Sponsored Scheme. The expenditure is incurred both by the central and state governments. The ratio of expenditure for centre and state is 60.40 for plains areas and 90:10 for North-eastern States and 3 Himalayan States. Under the scheme, the monetary assistance to a beneficiary is Rs.1.20 lakh <sup>16</sup>(120,000) in plains and Rs.1.30 lakh (130,000) in hilly states, difficult areas, and Integrated Action Plan (IAP) districts in tribal and backward regions. India a welfare state and providing dignified life to all Indians through various measures is the prime duty of the Government. This scheme is a step forward towards realization of the vision of Hon'ble Prime Minister of India.

For house construction, there is a provision for 90/95 person days of un-skilled labour wage under MGNREGA for construction of house, over and above the unit assistance under the PMAY-G scheme and the total amounts to about Rs 18,000 per house.

In the PMAY-G, implementation and monitoring are implemented through an end-to-end e-Governance model- AwaasSoft and Awaas App. While AwaasSoft is a workflow-enabled, web-based electronic service delivery platform through which all critical function of PMAY-G, right from identification of beneficiary to providing construction linked assistance (through PFMS), is carried out; AwaasApp is a mobile application used to monitor real time, evidence-based progress of house construction through date and time-stamped and georeferenced photographs of the house. AwaasSoft has been developed /is managed by the Ministry of Rural Development.

The workflow of AwaasSoft is as following in figure 7:

\_

 $<sup>^{16}</sup>$  Lakh is the currency unit which used in India and INR 1 lakh equals to INR100 thousands.

Diagram 1 Start Registration of Beneficiary on AwaasSoft Beneficiary NREGA job Yes account card number details captured? aptured? No Capture NREGA job Card number Capture bank account details Freeze beneficiary account for validation by Bank Validate beneficiary details received from Bank Generate proposal for sanction of house Generate sanction order Generate Ordersheet for payment of 1st Installment Generate FTO for payment of 1st Installment Inspect House for Level Completion Generate Ordersheet for payment of subsequent Installments Generate FTO for payment of subsequent Installments Inspect House for subsequent level completion Generate Ordersheet for payment of last Installment Generate FTO for payment of last Installment End

Figure 7 - Workflow of AwaasSoft

Source: Provide by the Ministry of Housing and Urban affairs from the questionaries

To address the gaps in the erstwhile rural housing schemes and in view of Government's commitment of providing "Housing for All" by 2022, Indira Awaas Yojana was re-structured into Pradhan Mantri Awaas Yojana –Gramin (PMAY-G) and was launched by Prime Minister in year 2016 with an objective of constructing 2.95 crore <sup>17</sup>(29.5 million) houses by the year 2022. PMAY-G aims to provide a pucca house with basic amenities to all houseless families and families living in kutcha and dilapidated house in rural areas by 2022. As per housing

<sup>&</sup>lt;sup>17</sup> Crore is the currency unit which used in India and INR 1 crore equals to INR10 million.

deprivation data of Socio – Economic Caste Census (SECC)-2011 survey, 2.95 crore <sup>18</sup>(29.5 million) beneficiaries were identified to be provided with houses by March 2022.

However, as per the recent assessment, 82 lakh <sup>19</sup>(8.2 million) households have either constructed their houses during the intervening period or found ineligible, leaving 2.13 crore (21.3 million) eligible beneficiaries in the Permanent Wait List. As on 31.03.2021, 1.92 crore (19.2 million) houses have been sanctioned and 1.36 crore (13.6 million) houses has been completed. As a result of reform measures undertaken in implementation of rural housing scheme (IAY+PMAY-G), a total of 2.10 crore (21 million) rural homes have been completed with quality in a span of 7 years (2014-2021). The scheme is gradually moving forward to reach the target.

#### 4.2.2 Pradhan Mantri Sadak Yojana

The primary objective of the PMGSY is to provide connectivity by way of an All-weather Road (with necessary culverts and cross-drainage structures, which is operable throughout the year), to the eligible unconnected Habitations in the rural areas with a population of 500 persons and above in Plain areas. In respect of the Hill States (North-East, Sikkim, Himachal Pradesh, Jammu & Kashmir and Uttarakhand), the Desert Areas (as identified in the Desert Development Programme), the Tribal areas and Selected Tribal and Backward Districts (as identified by the Ministry of Home Affairs and Planning Commission<sup>20</sup>) \* the objective would be to connect eligible unconnected Habitations with a population of 250 persons and above. The scheme focuses on measuring the length of rural roads constructed under this scheme. If considering to use as gathering data for number of benefitted households will consume huge amount of time and labour resources given the large number of populations. Therefore, measing by the number of households that can be benefited would not be considered into evaluation in this scheme.

About PMGSY, it primarily focuses on measuring by length of roads constructed under this scheme. It relies on GIS data for selection of roads in PMGSY-III, verification of proposals and for maintenance. Under PMGSY-III, all rural facilities of interest are initially geo-tagged using the GEOPMGSY mobile app along with pictures. Thereafter, this information is combined with the GIS (Geographic Information System) based DRRP (Detailed Project

 $<sup>^{18}</sup>$  Crore is the currency unit which used in India and INR 1 crore equals to INR10 million.

<sup>&</sup>lt;sup>19</sup> Lakh is the currency unit which used in India and INR 1 lakh equals to INR100 thousands.

<sup>&</sup>lt;sup>20</sup> Planning Commission was a government of India organization that, among other things, formulated India's Five-Year Plans.

Reports), and Habitation data from the Geospatial Rural Road Information System (GRRIS) which hosts relevant GIS data from all the states. Then, a "Trace Map" is generated which is a custom map which highlights important Through Routes and Major Rural Links based on a simulation of traffic from habitations to their nearest rural facilities. Roads recommended by Trace Map are combined with recommendations from political representatives, local PIU knowledge and other sources. Together these roads are referred as "Candidate Roads". Finally, Comprehensive Upgradation Cum Prioritisation List (CUCPL) is generated through OMMAS (Online Monitoring, Management & Accounting System) based on utility value of each such candidate road. Further, NRIDA (National Rural Infrastructure Development Agency<sup>21</sup>) uses GIS data and satellite imagery to verify whether road proposals are meeting objectives of PMGSY, their existing surface, available width, and surface condition of existing road etc.

A web-based electronic portal OMMAS (Online Monitoring, Management & Accounting System) is used for management of this scheme by acting as an instrument of transparency and electronic governance. This system has various sorts of data available such as details regarding sanction of DPRs (Detailed Project Reports), release of funds & expenditure, progress, quality monitoring, payments to contractors. Most of this information is in public domain and available to citizens to access. Also, the citizens can use a mobile application 'Meri Sadak' <sup>22</sup>to report on the quality or road condition to government agencies such as Programme Implementation Units, State Rural Road Development Agencies and National Rural Infrastructure Development Agency.

With a positive impact of agriculture, health, education, this scheme is definitely bringing urbanisation to the rural areas. Also, this scheme opens more employment opportunities to rural people as people are able to go to bigger cities for jobs, also, tourists start to visit these areas bringing the positive economy to the rural areas.

As the programme unfolded, a need was felt for consolidation of the existing Rural Road Network to improve its efficiency as a provider of transportation services and as a vehicle of social and economic development. For measuring and monitoring, except OMMAS, Meri Sadak, GRRIS and other mentioned technology which mention above, eMARG, PMGSY's IT platform for maintenance of rural roads, also uses GIS to readily display the geo-tagged inspection photos which are used to ratify routine maintenance payments to contractors. Every

<sup>&</sup>lt;sup>21</sup> It is a 100 percent Centrally Sponsored Scheme with the primary goal of providing all-weather road connectivity to about 1.60 lakh unconnected habitations at a cost of around Rs. 60,000 crore.

<sup>&</sup>lt;sup>22</sup> My Road in Hindi

road in eMARG is registered on GIS and each inspection is tied to a geo-tagged section of the road along with photographs.

Currently, the Phase III just started on 17 November 2021. Although we have considerable progress from previous two phases, there's still a long way to go forward. Also, considering the huge territory of India, this project can never truly end along with the daily usage of these roads leading to fixing in future.

#### 4.2.3 National Broadband Mission

National Broadband Mission is definitely going to boost the economy of India. It has been broadly estimated that a 10% increase in broadband penetration in a country can potentially led to 1% increase in GDP. However, studies in India estimate that the impact can be significantly higher for the country, given the increased productivity and efficiency gains that are likely to accrue to the economy. We are targeting to provide broadband to all. Once fully implemented, the mission would be able to support India's transition to a digitally empowered economy and society.

The growth of this mission can be seen in the number of broadband subscribers in both segments have increased significantly after introduction of the Mission. The total broadband subscription in India has increased from 661.27 million in November 2019 to 792.08 million in December 2021. During this period, wired broadband subscription has increased from 19.13 million to 26.43 million, mobile device broadband subscription has increased from 641.55 million to 764.52 million and fixed wire-less subscription has increased from 0.6 million to 1.13 million. This has resulted in the digital empowerment of India and and well-being of the people of India has increased.

For the users of Internet in India, Per GB wireless data tariff in India is one of the lowest in the world. During the quarter ending September 2021, the average revenue realization per subscriber per GB wireless data was INR 9.53 only. At the same time, the Average Wireless Data Usage per wireless data subscriber per month was 14.73 GB for this quarter. With the very cheap tariff across the nation, the access to internet by rural India would not be a big concern. People in rural India are using internet easily.

The lion's share of delivery of services in India has shifted to digital platform in the wake of the growth of the digital infrastructure across the country. The transformative potential of the technology has far reached implications for the society, industry, Government and the economy. For the agrarian sector, broadband is well equipped to deliver increased outputs, lower costs, easier administration, remote monitoring of livestock and better security. From

bringing healthcare and education services to the remote regions, to stimulating environmental responsibility by reducing the need to travel, and revamping transportation, energy, and even the very nature of work, broadband has assumed a position of great import for all nations. Over the last decade, there has been a global escalation in the penetration and usage of broadband and internet because of its vital role in the functioning of modern societies. A recent report published by the Indian Council for Research on International Economic Relations (ICRIER) found that a 10% increase in Internet subscribers in India results in a 3.2 percent increase in the rate of growth of State per capita GDP and a 10 percent increase in India's mobile Internet traffic, delivers on an average a 1.6 percent increase in India's GDP. India has been classified as a mobile first economy since over 90 percent Indian subscribers are accessing the broadband on mobile. Widespread use of digital communications to supplement the physical infrastructure and availability of quality basic services for a large part of the population, makes broadband a biggest transformational opportunity, not only enabling leapfrogging from currently deficient citizen services delivery system to a universal services delivery system, but also opening up a plethora of economic opportunities for everyone.

National Broadband Mission has been launched by Indian Government for digital empowerment of India and also for the well-being of the people of India. However, it has no concern with other schemes like MGNREGA when it comes to consider the labors who can help with the implementation of National Broadband Mission.

During the implantation, Right of Way (RoW) related difficulties impede rapid development of digital communications infrastructure across the country. To get rid of them, the Government of India has notified the Indian Telegraph Right of Way Rules 2016. These rules regulate fee and procedures for establishment of underground as well as overground telecom infrastructure in India. The responsibility centers associated with the establishment of telecom infrastructure are regularly persuaded to align themselves with the seamless establishment of telecom infra. States in the country have continuously been pursued and as a result, most of the States have agreed to implement the provisions of the Indian Telegraph Right of Way Rules 2016.

The mission once completed will have an across-the-board impact on Rural India especially in the field of Health, Education, and Employment etc. It would be easy to provide rural population with these basic services on digital platform. With easy and affordable access to broadband by rural India the dream of e-Health, e-Education etc. is translating into reality gradually. As the Indian economy accelerates towards achieving its millennium goals, it will

require all the critical resources at its disposal for efficient, productive & sustainable development. Amongst the most basic resources that the nation needs to make available to ensure that forward movement is uniform and homogeneous access to broadband services provided over state-of-the-art efficient networks, to connect a large proportion of un-served and serve large volume subscriber traffic.

The mission is expected to achieve the objectives it has outlined in 2019. The main objectives are facilitating universal and equitable access to broadband services for growth and development throughout the country, especially in rural and remote areas; addressing policy and regulatory changes required to accelerate the expansion and creation of digital infrastructure and services; encouraging and promoting adoption of innovative technologies for proliferation of broadband especially by the domestic industry; and promoting direct and indirect employment. So far as COVID situation is concerned, it did not affect the expected time pf completion. In fact, during the lockdown period in 2020, the telecom connectivity was the only medium to be in connection with the relatives as well as for transportation of essential items like foodstuff etc.

Overall, the "National Broadband Mission" was launched by the Government of India in the year 2019 to enable fast track growth of digital communications infrastructure, bridge the digital divide for digital empowerment and inclusion, and provide affordable and universal access of broadband for all. This flagship mission once completed would facilitate all villages of India to have access to affordable and quality broadband. The mission will impact Rural India with e-Health, e-Education etc. It has been meant to fulfil the information and communication needs of citizens and enterprises through the establishment of a ubiquitous, resilient, secure, accessible, and affordable Digital Communications Infrastructure. It seeks to unlock the transformative power of digital communications infrastructure for achieving the goal of digital empowerment and improved well-being of the people of India. As the mission has progressed, the broadband penetration in the country has increased from 661.27 million in November 2019 to 792.08 million in December 2021. The mission is expected to achieve its objectives.

#### 4.2.4 Ayushman Bharat – National Health Protection Mission

Pradhan Mantri Jan Arogya Yojana (PMJAY), also known as Ayushman Bharat Scheme, has been launched in India on 23.09.2018 which aims to address health care holistically, in primary, secondary and tertiary care system covering both prevention and health promotion envisioned as under:

- Setting up 1.5 lakh Health and Wellness Centres to provide comprehensive health care including for non-communicable diseases and maternal and child health services. These centres will also provide free essential drugs and diagnostic services.
- Provide health cover up to Rs. 5 lakh per family per year from secondary and tertiary care hospitalisation to around 10.74 crore poor and vulnerable families (approx. 50 crore families) under PMJAY.

The ratio of contribution towards premium between Centre and State is 60:40 in all States except North-eastern States & 3 Himalayan States where the ratio is 90:10 with an upper limit for Centre. In the case of Union Territories, the Central contribution of premium is 100% for UTs without legislature, while it is 60:40 for those with legislature. However, there is no debt has been observed due to expenditure on this scheme because sufficient amount of fund will have to be kept for this under the Budget.

PMJAY provides cashless and paperless access to services for the beneficiary at the point of service in any (both public and private) empanelled hospitals across India. In other words, a beneficiary from one State can avail benefits from an empanelled Hospital anywhere in the Country. All public hospitals (Community Health Centre and above), in the States implementing PMJAY, are deemed empanelled for the Scheme. Private hospitals are empanelled under PMJAY based on defined criteria. In general, the primary responsibility and decision-making power regarding empanelment of hospitals lies with the concerned State/UTs. In the future will also set up various wellness centres across the country by the requirement basis.

Under PMJAY, the State Governments have been given the flexibility to decide on the mode of implementation of the scheme. They can implement the scheme either through insurance companies, or directly through trust/society, or in a mixed mode i.e., partly insurance mode and partly trust mode and the update since launched are showing in following:

- As of 26.05.2020, 8 States/UTs viz Dadra & Nagar Haveli and Daman and Diu, UT of Jammu and Kashmir, UT of Ladakh, Kerala, Meghalaya, Nagaland, Puducherry, Punjab are implementing AB-PMJAY through insurance mode.
- 20 States/UTs viz. Andaman & Nicobar Islands, Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chandigarh, Goa, Haryana, Himachal Pradesh, Karnataka, Lakshadweep,

Madhya Pradesh, Manipur, Sikkim, Tripura, Uttar Pradesh, Uttarakhand. Mizoram Chhattisgarh, and Rajasthan are implementing the Scheme though Trust mode.

• 4 States viz., Gujarat, Jharkhand, Maharashtra, and Tamil Nadu are implementing the scheme in mixed mode.

PMJAY is an entitlement-based scheme. This scheme covers poor and vulnerable families based on deprivation and occupational criteria as per SECC database. Beneficiary families have been informed about their entitlements in advance through various awareness generation and Information Education and Communication (IEC) mechanisms. Eligible families are being informed through various means including personalized letters, ASHA workers, helpline, Gram Sabha, publication of list in local body offices etc. The different categories in rural area include:

- Automatically included households (based on fulfilling any of the 5 parameters of inclusion):
  - 1. Households without shelter.
  - 2. Destitute, living on alms.
  - 3. Manual scavenger families.
  - 4. Primitive tribal groups.
  - 5. legally released bonded labour
- Families based on Standard Deprivation Parameter
  - 1. Only one room with kutcha walls and kutcha<sup>23</sup> roof
  - 2. No adult member between age 16 to 59
  - 3. Female headed households with no adult male member between age 16 to 59
  - 4. Disabled member and no able-bodied adult member
  - 5. SC/ST households
  - 6. Landless households deriving major part of their income from manual casual labour

<sup>&</sup>lt;sup>23</sup> Kutcha means raw in Hindi but here it refers to the houses built by using materials such as mud, clay, hay grass or wood.

To enable an effective implementation of AB-PMJAY across the nation, a robust technology platform has been developed. For this AB-PMJAY has strategized to use the IT solutions as:

- Beneficiary Identification System (BIS) with robust search on more than 50 cr. beneficiary search
- Citizen portal MERA.pmjay.gov.in
- Hospital Empanelment Application
- Hospital Transaction Management System (HTMS) with national portability
- Dashboard & Analytical Solution

To effectively cover AB-PMJAY beneficiaries for the free testing and treatment of COVID-19, National Health Authority (NHA), the implementing authority for AB-PMJAY at the National level, has notified the packages for 'Testing for COVID-19' and 'Treatment of COVID-19'. Under this arrangement, AB-PMJAY beneficiaries are entitled to free testing and treatment for COVID-19 in all the empanelled public and private hospitals. If the testing facility is not available in an empanelled hospital, it can get into an arrangement with a private authorized lab for getting the test done for an AB-PMJAY beneficiary.

#### 4.2.5 Mahatma Gandhi National Rural Employment Guarantee Act

There are some impact on labor market by lauching MGNREGA, and the changes are as:

- The study found some evidence that MGNREGA has some impact on labour shortage & changes in wages.
- The tightening labour market has offered better bargaining power to agricultural laborers, better treatment at the place of work, and ability to negotiate the duration of the working day.
- One of the salutary effects of MGNREGA on poor rural households is the drastic reduction in distress migration.
- The rate of increase in the female agricultural wage has been much higher than male wages, and the historically high male-female differentials in agricultural wages have declined substantially.

India is a large country with big amount of population which has different cost of living in different states; therefore, the wage for the worker who applied is given according to the state GDP. After many years of implementation, the market wage rate is much higher than MGNREGA wage that reduce the willing from applying people. Also, the reduction in poverty through MGNREGA has come at a cost of soaring food prices as the agricultural laborer's wages have increased several folds.

MGNREGA also has implications for increase of urban wages in sectors like infrastructure and real estate that depend on migrant workers from rural areas.

To agricultural point of view, higher agricultural labourer wages in rural areas are leading farmers to take a move towards mechanization of farms which can have negative implications for labour requirement in the agriculture sector.

To the relation of poverty alleviation, the Government of India' MNREGA is the largest public workfare scheme of the world. It provides the guarantee of fixed employment to the rural people of India and in the process collides with the poverty engulfing the rural area. In the 2010-11 fiscal year, the MGNREGS employed 55 million households who put in 2.5 billion workdays on 5.1 million projects, financed by a budget of Rs. 394 billion. The Mahatma Gandhi National Rural Employment Guarantee Act, 2005 that created the MGNREGS grants each rural household a legal right to employment of up to 100days per year in public works projects at a minimum wage rate fixed by the concerned state. This employment guarantee programme is primarily intended to enhance the livelihood securities of the people in rural areas by supplementing wage employment opportunities to the unskilled labor force. Various reports say that the Act has been successful in reducing poverty in a significant way.

This scheme must brings some change into the life in rural part of India. According to a study conducted by the National Council of Applied Economic Research (NCAER) and University of Maryland using data, the MGNREGA has helped the Government of India in reducing rural poverty by a significant percentage and preventing millions of people from falling into poverty. The Mahatma Gandhi National Rural Employment Guarantee Act, 2005 came into effect in February 2006 primarily in 200 districts. It is a commendable effort of the GoI and has attracted national and international attention. It has manifolds objectives. On the one hand it is a social protection measure and implemented on the experience of previous public schemes and on the other hand, through providing guarantee employment in rural areas, it also seeks to improve labor market outcomes. This Act has dual purpose, it creates employment as well as sustainable assets in rural areas.

Managing a welfare scheme is hard to make sure all the process go well plus the technology is not as good in the current times. When it came to alive, there're some difficulties have been found. There have been instances of large-scale corruption in MGNREGA. Considering the large scale of the program, it can have serious implications for the economy of the country due to wastage of such a huge number of resources. Meanwhile, MGNREGA also has behavioral implications for the people covered under it. The people who are getting employment under MGNREGA are getting into a habit of getting paid for not working.

In order to monitor and evaluate India with huge number of population and large territory, Indian government is slowly changing into electronic system which can be more precocious to tracking the process of the scheme and make sure the payment is actually be received by the workers who applies for MGNREGA. Here are two portal which launched recently for tracking:

- e-muster roll in MGNREGS:
- All state government is all set to launch e-Muster Roll, an IT-enabled technology, to plug loopholes in government welfare schemes and improve transparency and efficiency in the implementation of MGNREGS.
- Launch of Yuktdhara GIS-based planning portal in MGNREGS:
  On 23rd Aug 2021 Union Minister MoRD in collaboration of ISRO launches
  Yuktdhara GIS-based planning portal it will help Ministries and Departments to
  see the geographical location of planned assets on a map in the web-based
  system to ensure better transparency, accountability and authenticity in the
  implementation of Mahatma Gandhi NREGA by use of technology.

In MGNREGA, it has separated the works into few catalogues which shows in following:

- Category: A: Public Works Relating to Natural Resources Management:
   Water conservation and water harvesting structures, Watershed management
   works, Micro and minor irrigation works, Renovation of traditional water
   bodies, Afforestation, tree plantation and horticulture in common and forest
   lands and Land development works in common land.
- Category B: Individual Assets for Vulnerable Sections: Improving
  productivity of lands of households, improving livelihoods through
  horticulture, sericulture, plantation, and farm forestry, Development of fallow

- or wastelands of households, Unskilled wage component in construction of houses sanctioned under the Indira Awaas Yojana, creating infrastructure for promotion of livestock and Creating infrastructure for promotion of fisheries.
- Category C: Common Infrastructure for NRLM Compliant Self-Help Groups:
   Works for promoting agricultural productivity by creating durable
   infrastructure required for bio-fertilizers and post-harvest facilities including
   pucca storage facilities for agricultural produce, Common work sheds for
   livelihood activities of self-help groups.
- Category D: Rural Infrastructure: Rural sanitation related works, providing all-weather rural road connectivity to unconnected villages, Construction of play fields, Works for improving disaster preparedness, Construction of buildings for Gram Panchayats and women self-help groups.

All in all, the aim to social protection for the most vulnerable people living in rural India by guaranteeing wage employment opportunities. At the same time, enhancing livelihood security of the rural poor through generation of wage employment opportunities in works leading to creation of durable assets.

#### 5 Results and Discussion

#### 5.1 Summarized analysis

Since India started its democracy, despite being dominated by many prime ministers from different parties with different political agendas, and the timeline adjusts the guiltiness, the only same aim is about Indian economic development. Before 2000, the Planning Commission mainly focused on resource allocation and infrastructure implementation, which made the base first for the coming prime ministers to implement better schemes for citizens. The current prime minister, Modi, starts "NITI Aayog" to replace the works from Planning Commission. NITI Aayog was implemented after the prime minister, Modi and the institution is similar to a planning commission but can directly allocate the resources to each state according to the demands. Overall, the Indian economy grows incredibly as a developing country. The Indian government keeps executing more social welfare schemes to improve citizens' quality of life.

#### 5.1.1 Result of GDP growth in India

In India is currently in the process to transform into the developed country and it can be observed from the transformation of industry sectors and the rising level of wages which are slowly move from primary sector to service sector in recent years. After crossing the 21<sup>st</sup> century, India changes a lot in terms of economic, technology, etc. In relation to the technology development, India becomes the first choice for outsourcing to the foreign companies because of the language advantage, good knowledge of education. At the same time, Indian government also strives to work on education, infrastructure and poverty. Except these factors, the comparative currency rate and the potential attract more and more foreign companies to invest; therefore, the result can be seen on the outstanding GDP growth. Due to COIVD- 19, it definitely impacts negatively onto economy and hopefully India can have a significant GDP growth result again and back the former boom in the coming years.

#### 5.1.2 Result of poverty indices

After applying all the data into FGT poverty Ratio, the result of poverty ratio came out negative value and extremely small value and so do square poverty ratio came out with small value as well. Although the target group's income of FGT poverty ratio has been tried with GSDP (State Gross Domestic Product) and average wage of rural area, the result came out in

unexpected way. Plus, the limited data information from Indian government. The author has found out that this poverty ratio is focus on the value of individual income in a specific group. However, there are some clues have been found out after demonstrated the graph from the remultiplied results.

Although the poverty gap and square poverty gap show a dramatically rising difference, the income inequality and Palma ratio explain divergently. The former must take the child and elder into account which cause the higher value and the latter only count the income of adult as result, therefore, the outcome shows gentle curve without dramatically.

Overall, the headcount ratio is unaffected by the depth or breadth of poverty, it provides little incentive for public actors to spend in alleviating the difficulties of the poor, whose poverty status is unlikely to alter. The poverty rate, on the other hand, incentivizes public actors to treat the needs of the barely poor, causing them to pass the poverty line and so reduce the headcount ratio, whereas the requirements of the very poorest are ignored. [33] However, the situation of high-income inequality is the main features of the way to developed country.

## 5.2 Feedback for selected schemes

The questions in each scheme have been asked based on four aspects which are economy, poverty alleviation, schemes itself and future vision of the scheme. Each selected scheme has depended on different levels of influence on economy point of view with its own purpose to implement.

In analyzing economic development, we usually consider several factors such as average life expectancy, education standards, environmental standards, income per capita, etc. In economy point of view, each scheme is not directly impactful to the national economy and most of the measurements are related to its aims only. I assume that as there are many schemes which implied for social welfare and poverty alleviation in India, it must cause the burden for Indian government to afford them for long term. Surprisingly, Indian government well distributes the fund without appearing in debt while implementing the schemes. There are two valued responses from the questionaries.

First, Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) has faced a lower wage rate than the market wage rate, which reduces some people's will to join the scheme. The reason behind it is the rising cost of living. Another reason is the outcome of the project may make agricultural mechanization because of the high labor wage for the farm. Not only wage for farm labor and general workers are increasing to affect the market

expenditure for salaries; however, I think this result is not full negative because this is the path for a developing country to transform into a developed country.

Another response is from National Broadband Mission, there are not much information on the internet to read about and the reason is that the scheme is just launched in 2019 and the Indian government prefers not to share all the information to public. In the response is mentioned that increasing 10% of the broadband penetration can lead to increase 1% of GDP. After influence of COVID-19, digitalization has become the potential elements in future vision; therefore, I believe that this scheme can definitely bring the positive impact to poverty alleviation as it creates better access to education and working opportunities.

Most of the schemes are based on the augments the living standards of the poverty which Indian government is striving to work on it, and they believe by implementing these schemes can slowly alleviate the poverty situation in India.

To poverty alleviation, Pradhan Mantri Sadak Yojina and National Broadband Mission have significant impact on this aspect, both schemes have assuredly opened the gate to education, job opportunities and agriculture and so on. It might hard to imagine that how important it is to construct the roads in rural areas. Without the road surface, it increases the difficulty for living such as limited resources, increased time-consumption for education, isolation. After implementation, the living standard has risen notably in the sense that people can go to cities for job searching. Students can go to schools to have better education and even push the tourism industry to the places of attraction in the villages. With the internet, a person can access more knowledge, communication, and academic resources, thus expanding the world's view. Moreover, the internet keeps low-rate pricing for the poor to easily afford. This impact is not only to the people but also to all the industries located in rural areas. According to the response, "Agrarian sector, broadband is well equipped to deliver increased outputs, lower costs, easier administration, remote monitoring of livestock and better security." and so does to the healthcare and education service. Author assumes that these schemes would cooperate with MGNREGA for constructing the facilities at the beginning; however, poverty alleviation is not only restricted to create more job opportunities but also to promote the qualities of living.

It was fortunate to have access with Indian government departments that are actually dealing with the selected schemes and to clarify about the author's assumptions about the schemes and understand the difficulties they have faced on implementation, despite the privacy restrictions from the Indian government, the outcomes are still not been affected by.

All of the selected schemes are going to continue with the projects in more phases or stages that the concerned departments of Indian government are planning to implement in the future, and the common aim is to create a well social welfare system and accelerated development of the country for Indian citizens.

#### 6 Conclusion

It is incredible for India for transforming into one of fastest growing economies in the world from a low-rank country before. In chapter 1 is mentioned that development levels in one nation would consider economics as one of the important indicators: however, India as a developing country and it's in progress to transform into developed country. By the section transforming, GDP growth, and income inequality can be observed that the country is slowing changing and Indian government is making efforts on welfare schemes and well-being of nation's citizens especially in recent decades. Poverty is always an issue for developing countries like India where usually is misunderstood with main reason related to its well-known castes system. That is not the case as the caste system has been abolished in 1950 and Indian government implemented class system instead which separated more catalogues like high class, upper middle class, lower middle class, upper low class etc. However, it is really difficult to remove the concept of people by abolished policy, those lower caste people like Dalits will take in consideration into poverty group.

China is the best comparative example to India when it comes to the economy similarity as they both have almost same year for becoming independent nations. Both are using poverty line as measurement for defining the poverty group and for implementing schemes according to the relevant situations. Nevertheless, Indian schemes are more comprehensive and thoughtful than Chinese schemes which mainly focuses on rural poverty. Most of Indian schemes are considering the population in both urban and rural areas and also with the class level as objects; meanwhile, the schemes come up more and more with the social and economic issues. Although both of countries develop its economy fast and have the significant result of reducing poverty, some of the main reasons of China's development are lower wages combind with huge population and preferential policies to attract foreign investment like investment boom opened by Taiwanese companies which brought plenty of job opportunities, but regarding the urban poverty, most of the Chinese were not considered better when it comes to poverty alleviation schemes.

Currently, India has the similar situation in the sense it became the service hub for world which is caused by the foreign companies' investments because of English speaking population advantages. However, Indian rupees depreciates instead of appreciating which put India in low position while still creating low wages in the country. In general, the result and the process of social welfare schemes in India are being implemented well, despite the five selected schemes

not representing all implementation procedures which are a chequered history. However, the result shows positively on Indian economy and numbers of poverty measurement.

India is a complex country which can be thought as both poor and also rich country at the same time. The phenomenon is that not all the rich are willing to help the poor and needy thus they rather to see the struggling from the poor and needy and sat on the sidelines. The national well-being is not only the responsibility for government but also all the residents who are in a good financial condition or powerful resources. It will be great that Indian government can cooperate with large enterprises for more job opportunities which can be a training program according to the needs for rural parts and support their corporate social responsibility. Tax is an import part of government revenue; public finance is the duty as a resident. Although as observed by the department of income tax, there are only 6.25 percentage out of total population are actually paying the taxes. Indian government ought to implement strict laws & regulations indeed for residents who are doing tax evasion, if income tax revenue is completed, it will definitely change situation in India. Even current financial revenue in India is already great, it's hard to imagine if the rate of tax payer increases to 50% and or even 100%. India is potentially the fastest developing country given the performance in terms of economy, technology and purchasing power can be greater than China is the near future, Due to the large amount of population being youth, abundant in natural resources, educational phenomenon, cultural diversity, historically enriched civilization and traditional family values, geographical location, military value, influence on global economy and finance, multiple religions and comparative currency rate, it makes India what it is now.

#### 7 References

- 1. Roy, S.S. (2020). *Poverty & Equity Brief South Asia- India*. [online] World Bank. Available at: https://databank.worldbank.org/data/download/poverty/33EF03BB-9722-4AE2-ABC7-AA2972D68AFE/Global\_POVEQ\_IND.pdf [Accessed 24 Feb. 2022].
- 2. Cover SECTION A INDIA National Multidimensional Poverty Index Baseline Report. (n.d.). [online] Available at: https://www.niti.gov.in/sites/default/files/2021-11/National MPI India-11242021.pdf.
- 3. Foster, J., Greer, J. and Thorbecke, E., 1984. A class of decomposable poverty measures. *Econometrica: journal of the econometric society*, pp.761-766.
- 4. Todaro, M.P. and Smith, S.C., 2012. Economic development 11th edition.
- 5. Lanahan, L., The Logic of Economic Development: A Definition and Model for Investment Maryann Feldman\* Theodora Hadjimichael\*\* Tom Kemeny^.
- 6. Haller, A.P., 2012. Concepts of Economic Growth and Development. Challenges of Crisis and of Knowledge. *Economy Transdisciplinarity Cognition*, *15*(1).
- 7. Ioan, B., Malar Kumaran, R., Larissa, B., Anca, N., Lucian, G., Gheorghe, F., Horia, T., Ioan, B. and Mircea-Iosif, R., 2020. A panel data analysis on sustainable economic growth in India, Brazil, and Romania. *Journal of Risk and Financial Management*, *13*(8), p.170.
- 8. Watt, P., 2000. Social Investment and Economic Growth: A strategy to eradicate poverty. Oxfam.
- 9. Upadhyay, R.K., 2019. Slowdown in Indian Economy and MGNREGA. *Available at SSRN 3493057*.
- 10. Akintola, J.O. and Yusuff, J.M., 2001. Socio—economic analysis of poverty levels among rural dwellers in Kwara State, Nigeria. *International Journal of Environment and Development*, 5(2), pp.42-48.
- 11. Hussaini, M., 2014. Poverty alleviation programs in Nigeria: Issues and challenges. *International Journal of Development Research*, 4(3), pp.717-720.
- 12. Rafi, M., Naseef, M. and Prasad, S., 2021. Multidimensional energy poverty and human capital development: Empirical evidence from India. *Energy Economics*, 101, p.105427.
- 13. Kulkarni, V.S. and Gaiha, R., 2021. Beyond Piketty: A new perspective on poverty and inequality in India. *Journal of Policy Modeling*, 43(2), pp.317-336.
- 14. Cobbinah, P.B., Black, R. and Thwaites, R., 2013. Dynamics of poverty in developing countries: Review of poverty reduction approaches. *Journal of Sustainable Development*, 6(9), p.25.
- 15. Guo, Y., Zhou, Y. and Liu, Y., 2019. Targeted poverty alleviation and its practices in rural China: A case study of Fuping county, Hebei Province. *Journal of Rural Studies*.
- 16. Guo, Y. and Liu, Y., 2021. Poverty alleviation through land assetization and its implications for rural revitalization in China. *Land Use Policy*, 105, p.105418.
- 17. Feldman, M., Hadjimichael, T., Lanahan, L. and Kemeny, T., 2016. The logic of economic development: A definition and model for investment. Environment and Planning C: Government and Policy, 34(1), pp.5-21.
- 18. Sharma, A. and Agarwal, H., 2018. Role of Government in eradication of Rural Poverty and Enhancing Employment in India. *Contemporary Social Sciences*, p.264.
- 19. pmayg.nic.in. (n.d.). *Pradhan Mantri Awaas Yojana-Gramin*. [online] Available at: http://pmayg.nic.in/netiay/about-us.aspx [Accessed 27 Mar. 2022].
- 20. Azeez, N.A., Analysis of India's Rural Development Budgetary Implementations.

- 21. dot.gov.in. (n.d.). *National Broadband Mission* | *Department of Telecommunications* | *Ministry of Communication* | *Government of India*. [online] Available at: https://dot.gov.in/national-broadband-mission [Accessed 27 Mar. 2022].
- 22. Keshri, V.R. and Gupta, S.S., 2019. Ayushman bharat and road to universal health coverage in India. *Journal of Mahatma Gandhi Institute of Medical Sciences*, 24(2), p.65.
- 23. Dhaka, R., Verma, R., Agrawal, G. and Kumar, G., 2018. Ayushman Bharat Yojana: A memorable health initiative for Indians. *Int J Community Med Public Health*, 5, pp.3152-3.
- 24. Pandey, R., 2017. MGNREGA and its role in rural development. *International Journal of Scientific and Research Publications*, 7(11), pp.198-202.
- 25. Desai, S., Vashishtha, P. and Joshi, O., 2015. *Mahatma Gandhi national rural employment guarantee act: A catalyst for rural transformation* (No. id: 7259).
- 26. Upadhyay, R.K., 2019. Slowdown in Indian Economy and MGNREGA. *Available at SSRN 3493057*.
- 27. Livemint (2019). *A short history of Indian economy 1947-2019: Tryst with destiny & other stories*. [online] https://www.livemint.com. Available at: https://www.livemint.com/news/india/a-short-history-of-indian-economy-1947-2019-tryst-with-destiny-other-stories-1565801528109.html.
- 28. GHOSH, S., 2022. Indian economy. PHI Learning Pvt. Ltd..
- 29. Incometaxindia.gov.in. (2019). *Home Central Board of Direct Taxes, Government of India*. [online] Available at: https://www.incometaxindia.gov.in/Pages/default.aspx [Accessed 27 Mar. 2022].
- 30. Admin (2020). *Prime Minister inaugurates National Conference on Vigilance and Anti Corruption*. [online] www.narendramodi.in. Available at: https://www.narendramodi.in/prime-minister-narendra-modi-inaugurates-national-conference-on-vigilance-and-anti-corruption-552092 [Accessed 27 Mar. 2022].
- 31. Erlando, A., Riyanto, F.D. and Masakazu, S., 2020. Financial inclusion, economic growth, and poverty alleviation: evidence from eastern Indonesia. *Heliyon*, 6(10), p.e05235.
- 32. Rodrik, D. and Rosenzweig, M.R., 2010. Preface: Development policy and development economics: An introduction. *Handbook of development economics*, 5, pp.xv-xxvii.
- 33. Alkire, S., Oldiges, C. and Kanagaratnam, U., 2021. Examining multidimensional poverty reduction in India 2005/6–2015/16: Insights and oversights of the headcount ratio. *World Development*, 142, p.105454.

# 8 Appendix

Appendix 1 - Ayushman Bharat – National Health Protection Mission

Appendix 2 - Mahatma Gandhi National Rural Employment Guarantee Act

Appendix 3 - National Broadband Mission

Appendix 4 - Pradhan Mantri Awaas Yojana (Gramin)

Appendix 5 - Pradhan Mantri Gram Sadak Yojana



**Interview of Diploma Thesis from Czech University of Life and Science** 

Diploma thesis topic: Economic Development and Poverty Alleviation in India

Selected scheme: Ayushman Bharat – National Health Protection Mission

Interviewer: Pei-Nung Wu

Interview: Various departments of Indian government (concerned with selected schemes)

Aim: To evaluate the five selected schemes and how it impacts on economic development and poverty alleviation aspects.

#### Contact

Name: Pei-Nung Wu

Email: xwu\_p001@studenti.czu.cz Phone Number: +420 777 406 935

#### Introduction

India is one of the potentially fastest developing countries with good economic development and poverty alleviation in recently years. According to the data from World bank, Gross domestic product (GDP) of India has continuously grown up after gaining independence from United Kingdom. Although poverty issue remains inside the nation, current prime minister Narendra Modi is dedicated to alleviation of the poor people with introduction of more schemes on poverty alleviation and economic development. In the article, there're five selected schemes which are based on the lowest requirements from Maslow Needs Hierarchy theory.

By examining of nominal GDP of India and Foster-Greer-Thorbecke poverty model can reveal the impact on India; meanwhile, understanding the situation, difficulties, changes by interviewing with Indian government officers who related to the selected schemes.

In order to better understand the functioning and impact of the schemes, the questions are based on the four aspects- Economy, poverty alleviation, schemes, and future vision of the scheme.

Kindly provide the information/feedback as such to help the author find the answer to the questions below, thank you.

## **Impact of the Scheme**

Does the expenditure of this scheme become the debt for
central government and state government?

**Response:** 

If yes, then what's the recommended solution for it?

**Response:** 

## **Poverty alleviation**

After implementing this scheme, have it been observed the result of increasing the life expectancy?

**Response:** 

#### **About the Scheme**

Have these wellness centers been made and started to operate? Or they are still in process of setting up?

**Response:** 

]	How has this scheme been implemented till now since 2018?
]	Response:
I	Has this scheme considered to cooperate with Pradhan Mantri Gram Sadak Yojana which can build the road based on the location of wellness centers?
]	Response:
Futur	e
j (	In the future, have the central government considered to increase the range of medical services provided? (Like annual check-up, dental coverage etc.) Response:
Overa	ll and conclusion



**Interview of Diploma Thesis from Czech University of Life and Science** 

Diploma thesis topic: Economic Development and Poverty Alleviation in India

Selected scheme: Mahatma Gandhi National Rural Employment Guarantee Act

(MGNREGA)

Interviewer: Pei-Nung Wu

Interview: Various departments of Indian government (concerned with selected schemes)

Aim: To evaluate the five selected schemes and how it impacts on economic development and poverty alleviation aspects.

#### Contact

Name: Pei-Nung Wu

Email: xwu\_p001@studenti.czu.cz Phone Number: +420 777 406 935

### Introduction

India is one of the potentially fastest developing countries with good economic development and poverty alleviation in recently years. According to the data from World bank, Gross domestic product (GDP) of India has continuously grown up after gaining independence from United Kingdom. Although poverty issue remains inside the nation, current prime minister Narendra Modi is dedicated to alleviation of the poor people with introduction of more schemes on poverty alleviation and economic development. In the article, there're five selected schemes which are based on the lowest requirements from Maslow Needs Hierarchy theory.

By examining of nominal GDP of India and Foster-Greer-Thorbecke poverty model can reveal the impact on India; meanwhile, understanding the situation, difficulties, changes by interviewing with Indian government officers who related to the selected schemes.

In order to better understand the functioning and impact of the schemes, the questions are based on the four aspects- Economy, poverty alleviation, schemes, and future vision of the scheme.

Impact of the scheme
Economy
How does Mahatma Gandhi National Rural Employment Guarantee Act impact on rural labor market?
Response:
According to the online research, there are different wage which depends on the state GDP, how does it impact to wage?
Response:
Poverty alleviation
How is MNREGA related to poverty alleviation?
Response:
Do you think MNDECA has impacted Dural India?
Do you think MNREGA has impacted Rural India?
Response:
About the Scheme

It is not easy to manage welfare scheme in large amount population country, how does Indian government manage it?

What has the difficulty that Indian government faced since launched?
Response:
Future
In the future or recent year, will Indian government transform aim of the scheme into skill training for job consultation for the poverty in rural area if there any more negative impact?
Response:

**Overall and conclusion** 



Interview of Diploma Thesis from Czech University of Life and Science

Diploma thesis topic: Economic Development and Poverty Alleviation in India

Selected scheme: National Broadband Mission

Interviewer: Pei-Nung Wu

Interview: Various departments of Indian government (concerned with selected

schemes)

Aim: To evaluate the five selected schemes and how it impacts on economic development and poverty alleviation aspects.

#### Contact

Name: Pei-Nung Wu

Email: xwu\_p001@studenti.czu.cz Phone Number: +420 777 406 935

#### Introduction

India is potentially one of the fastest developing countries across the globe with a good pace of economic development and poverty alleviation in recently years. According to the data from World bank, Gross domestic product (GDP) of India has continuously grown up after post-independence. Although poverty issue remains the core issue of the nation, current prime minister Shri Narendra Modi is dedicated to alleviation of poverty with a series of schemes on poverty alleviation and economic development. In the article, there're five selected schemes which are based on the lowest requirements from Maslow Needs Hierarchy theory. By examining the nominal GDP of India and Foster-Greer-Thorbecke poverty model, the impact on India can be revealed. The situation, difficulties and changes have been gone through by interviewing the Indian government officers who are related with the selected schemes. One of the five schemes of the Government of India is "National Broadband Mission", which was launched in 2019 with a vision to enable fast track growth of digital communications infrastructure, bridge the digital divide for digital empowerment and inclusion, and provide affordable and universal access of broadband for all.

In order to better understand the functioning and impact of the schemes, the questions are based on the four aspects- Economy, poverty alleviation, schemes, and future vision of the scheme.

# **Impact of the Mission**

### **Economy**

What do you think about the effect of this mission on the economic aspects of India?

**Response:** 

How did you see the growth of broadband owed to implementation of the Mission - Mobile broadband as well as Fixed line broadband?

**Response:** 

# **Poverty alleviation**

As the object stated, this mission aims to all the citizens have access to broadband service. However, there's a poverty issue existing in the nation especially in rural area, how will you create the access to them? (Note: Some of the villagers may not afford electronic device or broadband service fee.)

**Response:** 

While the government decided to work on the optical fiber, radio network and satellites, does Indian government cooperate with other schemes which have been launched for improving the unemployment in rural area like MGNREGA etc.?

### **About the Scheme**

Which aspect will be affected the most in rural area after completing the mission? (Like entertainment, education, communication etc.)

**Response:** 

During this process, what kind of difficulties you faced? (i.e. installation, technical problem, conflict with other state government process etc.)

**Response:** 

#### **Future**

COVID situation definitely affects the expected time to complete the mission, but when do you think that this mission can be finished and what's the next objective of this mission or this mission will be closed?

**Response:** 

Overall and conclusion



Interview of Diploma Thesis from Czech University of Life and Science

Diploma thesis topic: Economic Development and Poverty Alleviation in India

Selected scheme: Pradhan Mantri Awaas Yojana (Gramin)

Interviewer: Pei-Nung Wu

Interviewee: Mahesh Kumar Kashyap

Aim: To evaluate the five selected schemes and how it impacts on economic development and

poverty alleviation aspects.

#### **Contact**

Name: Pei-Nung Wu

Email: xwu\_p001@studenti.czu.cz Phone Number: +420 777 406 935

# Introduction

India is potentially one of the fastest developing countries across the globe with a good pace of economic development and poverty alleviation in recently years. According to the data from World bank, Gross domestic product (GDP) of India has continuously grown up after post-independence. Although poverty issue remains the core issue of the nation, current prime minister Shri Narendra Modi is dedicated to alleviation of poverty with a series of schemes on poverty alleviation and economic development. In the article, there're five selected schemes which are based on the lowest requirements from Maslow Needs Hierarchy theory. By examining the nominal GDP of India and Foster-Greer-Thorbecke poverty model, the impact on India can be revealed. The situation, difficulties and changes have been gone through by interviewing the Indian government officers who are related with the selected schemes. One of the five schemes is the "Pradhan Mantri Awaas Yojana Gramin (PMAY-G)", under the Ministry of Rural Development, Government of India, with a vision to provide "Housing for All". The PMAY-G scheme is meant to provide pucca house (with basic amenities) to rural people who do not own a house and people who live in kutcha houses or houses which are severely damaged. At present, the minimum size of the houses to be built under the PMAY-G scheme is 25 square meters.

In order to better understand the functioning and impact of the schemes, the questions are based on the four aspects- Economy, poverty alleviation, schemes, and future vision of the scheme.

# **Impact of the Mission**

# **Economy**

How has this scheme helped with Indian economy, considering economic development related factors such as average life expectancy, education standards, environmental standards, income per capita etc.?

**Response:** 

Does the expenditure of this scheme become the debt for central government and state government? If yes, what's the recommended solution for it?

**Response:** 

### **Poverty alleviation**

For houses' construction, does the Pradhan Mantri Awaas Yojana (Gramin) uses MNREGA scheme?

### **About the Scheme**

How AwaasSoft works and who is responsible to manage the data for it?

**Response:** 

2022 is the target year to complete the goal of 2.95 Crore houses. Has this aim been achieved? what is the next aim for the following year?

**Response:** 

Overall and conclusion

\*\*\*\*



Interview of Diploma Thesis from Czech University of Life and Science

Diploma thesis topic: Economic Development and Poverty Alleviation in India

Selected scheme: Pradhan Mantri Gram Sadak Yojana

Interviewer: Pei-Nung Wu

Interviewee: Various departments of Indian government (concerned with selected

schemes)

Aim: To evaluate the five selected schemes and how it impacts on economic development and poverty alleviation aspects.

#### **Contact**

Name: Pei-Nung Wu

Email: <a href="mailto:xwu\_poo1@studenti.czu.cz">xwu\_poo1@studenti.czu.cz</a>
Phone Number: +420 777 406 935

### Introduction

India is potentially one of the fastest developing countries across the globe with a good pace of economic development and poverty alleviation in recently years. According to the data from World bank, Gross domestic product (GDP) of India has continuously grown up after post-independence. Although poverty issue remains the core issue of the nation, current prime minister Shri Narendra Modi is dedicated to alleviation of poverty with a series of schemes on poverty alleviation and economic development. In the article, there're five selected schemes which are based on the lowest requirements from Maslow Needs Hierarchy theory. By examining the nominal GDP of India and Foster-Greer-Thorbecke poverty model, the impact on India can be revealed. The situation, difficulties and changes have been gone through by interviewing the Indian government officers who are related with the selected schemes. One of the five schemes of the Government of India is "Pradhan Mantri Gram Sadak Yojana", which was launched by the Government of India to provide connectivity to unconnected Habitations as part of a poverty reduction strategy.

In order to better understand the functioning and impact of the schemes, the questions are based on the four aspects- Economy, poverty alleviation, schemes, and future vision of the scheme.

# **Impact of the Scheme**

# **Economy**

In analyzing economic development, we usually consider several factors such as average life expectancy, education standards, environmental standards, income per capita, etc. Have these factors been considered to also measure the number of households (students or workers) which can be benefitted from this scheme?

### **Response:**

As stated above, nominal GDP is also affected positively by this scheme, could you provide the specific number of households which increase their income?

#### **Response:**

# **Poverty alleviation**

When the scheme launched, does Indian government cooperate with other schemes which made for improve the unemployment in rural area like MGNREGA etc.?

#### **Response:**

After launching this scheme, how have the poor people been benefitted from this scheme? (More job possibilities, increasing literacy rate, improving the living quality etc.)

### **About the Scheme**

Except measuring the completed roads, how have the state government or central government evaluated the results and monitored the development of this scheme?

**Response**:

#### **Future**

In phase III, the target to consolidate through route linking to major road by March 2025, what's the next target after phase III?

**Response:** 

**Overall and conclusion** 

\*\*\*\*