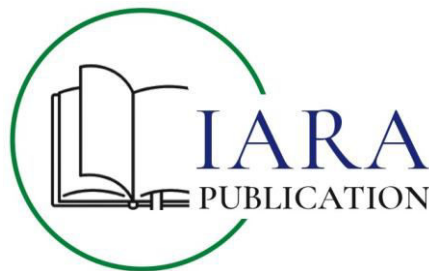


INDIAN ECONOMY: EMERGING SCENARIO IN 21st CENTURY



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DR. GULNAWAZ USMANI
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Indian Economy: Emerging Scenario in 21st Century



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Indian Economy: Emerging Scenario in 21st Century

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Foreward

Poona College of Arts, Science and Commerce is a reputed institute of Savitribai Phule Pune University. The Economics Department of the college is known for its academic and research activities. Conferences, workshops and seminars are frequently held in the department in which staff and students regularly contribute to enrich the academic atmosphere which is crucial to the development of the college.



When Dr. Shahid Jamal Ansari asked me to write a foreword of this book, I felt elation and pride to see my student achieve academic recognition.

The present volume is a sequel to the conference held earlier this year at the college. Along with his colleagues, Dr. Gulnawaz Usmani, also my student, and Dr. Vidyasagar Singaram, Dr. Shahid has painstakingly shortlisted research papers to be included in this volume. Two important highlights of the book are firstly, that the research articles cover varied themes and focus on a wide range of issues of contemporary interest that need to be discussed in the context of the Indian Economy. The second important feature is that paper contributors are from several states thus ensuring that this volume is relevant for India as a whole and not confined to one or two states. The research papers thus encompass topics ranging from a study of slums in Meerut, in Uttar Pradesh, to problems of paddy cultivation in Assam, disparities in block development in Medinipur, West Bengal to a study of industrial growth and impact of carbon emission. Problems of economic growth, unemployment and inflation and the social sector also find a mention in the volume. The book would be incomplete without a discussion on poverty and human development which has been researched over and over again. However, it is still relevant subject in the current economic scenario and is included here.

The present work is a useful addition to existing literature on the emerging economic scenario in the country. I am sure that the range of subjects dealt with in this volume would give new ideas and dimensions to interested researchers in the field.

A handwritten signature in blue ink that reads "Nighat Ahmad". The signature is written in a cursive style with a horizontal line underneath the name.

Professor Nighat Ahmad (retd.)

Director, Advanced Centre for Women's Studies

Chairman, Department of Economics

Aligarh Muslim University

Preface

Indian Economy is the world's fifth largest economy of \$3.75 trillion after USA, China, Japan and Germany. This is one of the fastest emerging economies and it has potential to be a global economic super power. To tap full potential of the economy, emerging issues and challenges before the economy must be addressed properly. All major macroeconomic variables like GDP, income, investment, savings, aggregate demand and supply, balance of payments (BoP), exchange rate, poverty, unemployment, inflation etc. are not in the right volume and in the expected direction today.

The present study is a humble attempt to address major challenges confronting the Indian economy and to give directions for further development. Issues related with all sectors of the economy- agriculture, industry and services are discussed here. For example, topics like entrepreneurship development, migration, poverty and human development, HR management and planning in the organisation etc.

Another important area addressed here is rural economy under which rural wages, MSP, food prices, and food security, Khadi and village industries are taken and well-researched papers on the topics are incorporated in this book. Inflation is also focussed and some studies are selected for this purpose.

Moreover, in successive part of the study, issues related to industrial production and energy consumption and its impact on the carbon emissions both in the short and long-runs are also discussed. A study of this issue based on Granger Causality Analysis indicates a unidirectional causation both from industrial production and energy consumption to carbon emissions. This particular study argued that industrial development or economic development in India is taking place at the cost of environmental quality.

Finally, research papers on social sector and trends in social sector expenditure in north eastern states of India are included in this study. One paper on Slavery in Islamic Economics is also added here. The paper is an attempt to investigate the factors which induce slavery system in human civilisation. It also discusses the role of Islam in abolishing slavery.

In this book, editors have included quality research works to serve their purpose to discuss and resolve issues related with development aspect of the Indian economy. Editors have mainly focussed on the major challenges of today's economy like poverty, unemployment, migration, inflation and economic and human development.

Paper contributors are research scholars and senior professors from all regions of India. So, the spatial distribution of the study and themes covered in the book will be very helpful for budding researchers.

Finally, I hope that findings and suggestions of this manuscript will be very fruitful for policy makers and academicians to successfully overcome the concerns of the economy. It will guide theoretically as well as empirically in addressing recent concerns of our economy, particularly aspects of growth and development, agricultural sector, social sector, poverty and human development. This work will be a guiding pole for governments, policy makers, academicians and aspiring researchers in current situation.

Acknowledgement

At the very outset, I would like to thank my management Anjuman Khairul Islam, Mumbai for their full cooperation in making this work possible. I owe a deep sense of gratitude to them for their continued support.

I would like to especially acknowledge with heartfelt gratitude the inspiration and invaluable advice I received from Professor Dr. Aftab Anwar Shaikh, Principal, Poona College, from time to time. He has been our mentor and guide throughout the period when we were working on this project.

I also acknowledge and appreciate the support of Mr. Khan Moinuddin, Vice-Principal (Arts), Poona College.

I am thankful to my colleagues, Dr. Gulnawaz Usmani, Dr. Vidyasagar Singaram, Mr. Waseem Ahmed and Mr. Milind Patil who have been with me throughout and helped me in all respect. I am also highly thankful to Dr. Mirza Imran Baig for his technical support and advice.

I feel privileged to acknowledge the inputs given by my respected research guide Professor Nighat Ahmad, Ex-Director, Centre for Women's Studies and Ex-Chairman, Department of Economics, Aligarh Muslim University. I am thankful to her for giving her consent to write the foreword for this book and for her appreciation of the papers included in this work.

Lastly, I am indebted to all paper contributors in this manuscript without their sincere efforts this work would not have been possible. This book is the outcome of research work in their respective fields. Their insightful articles will be a great help to students and academicians. It is hoped that policy makers will take note of some of the useful suggestions made by the contributors of this volume.

Dr. M. Shahid Jamal Ansari

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**A STUDY OF PERCEPTION TOWARDS ENTREPRENEURSHIP
DEVELOPMENT PROGRAMMES OFFERED BY KHADI AND VILLAGE
INDUSTRIES COMMISSION IN WARDHA DISTRICT**

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1.1 INTRODUCTION

Entrepreneurship has been identified as a key driver of economic growth and development in many countries, including India. The Khadi and Village Industries Commission (KVIC) has been playing a significant role in promoting entrepreneurship in India by offering various development programs to support the establishment of small businesses in rural areas. The perception of these programs is crucial in ensuring the success of entrepreneurs and the growth of the rural economy (Tiwari and Anjum 2016)

This study aims to evaluate the perception of entrepreneurship development programs offered by KVIC in Wardha district. The study will assess the impact of these programs on the economic growth of the region, the level of entrepreneurial activity, and the social and environmental sustainability of the enterprises (Act 2005)

The study will contribute to the existing literature on entrepreneurship development and provide insights into the perception of KVIC's programs in promoting rural entrepreneurship. The findings of the study will be useful for policymakers and development practitioners in designing and implementing effective entrepreneurship development programs in other rural areas (Sharma 2021)

2.1 LITERATURE REVIEW

The literature suggests that entrepreneurship development programs have a significant impact on the success of small businesses in rural areas. These programs provide various forms of support, including financial assistance, training, marketing, and technology, which are crucial for the establishment and growth of small businesses. Studies have found that entrepreneurs who participate in these programs are more likely to succeed in their businesses than those who do not receive support. This literature review will provide a comprehensive overview of the existing literature on entrepreneurship development programs and the perception of KVIC's support in promoting small businesses in rural areas. The review will identify the key factors that influence the success of these programs and the challenges that limit their perception. The findings of the literature review will inform the research methodology and help to frame the research questions for the study. The review will also provide a theoretical foundation for the study and help to identify gaps in the existing literature that the study aims to address. Studies have also examined the perception of KVIC's entrepreneurship development programs in different regions of India.

M. S. Altamash (2020), Researched the Indian government has permitted the launch of a brand-new resource subsidy program named Prime President's Job Generation Program (PMEGP) by combining multiple strategies that had been in procedure until 31.03.2008, particularly regarding the Prime Minister's Rozgar Yojana (PMRY) and Rural Job Generation Training course (REGP), for the creation of jobs in rural and urban areas through the founding of micro-entrepreneurs. The Ministry of MSMEs will operate PMEGP as a Nodal Agency program. As the only Nodal Agency at the national scale, Khadi and (KVIC), a legislative institution under the administrative jurisdiction of Micro, Small, and Medium Companies, implements the Scheme. State KVIC Directorates, State Khadi and Industrial Development corporation Boards (KVIBs), Entrepreneurial Development Centers (DICs), and banks operate the plan at the state level. KVIC directs the federal subsidies under the program via the designated banks for eventual distribution.

Priyanka A. Dongre (2018): In this study success of finance is crucial for decreasing the nation's extent of poverty. With the rise in population, unemployment is a concern we currently face. Migration from rural to urban areas occurs in the quest for jobs. 60 to 75 million Indian families live below the poverty level. Several banking firms support lending services in addition to financial firms, collaborative sectors, cooperation institutions, non-governmental organizations, financial institutions, and nationalized banks. Microfinance helps rural Indians with their financial needs. Finance facilitates the implementation of government development policies with the assistance of state governments, NGOs, NABARD, and several other institutions. With the development of Self-Help Groups, microfinance raises a community's awareness of its saving habits and responsibility (SHG). Based on an examination of the participants' knowledge of SHGs and microfinance, it can be concluded that the participants are well-versed in the notions of microfinance through SHGs, including knowledge of the group's constitution, bookkeeping and accounting, managing, and banking processes.

Gaurav Katoch (2018): This article discusses the role of KVIC in enhancing regional lives via the promotion and growth of Khadi & Cottage Industries. The Khadi and Village Industries program is crucial in offering job possibilities for rural artisans, particularly those from the most disadvantaged socioeconomic classes. This article examines the function of governmental entities such as Khadi and Village Industries in developing micro-businesses. Secondary data was gathered to achieve the study's purpose. The relevant secondary data was acquired from KVIC's previously released publications. The data was evaluated using the proper statistical instruments. Descriptive analyses such as average and percent were generated to assess different concerns, and the annual compounded growth rate was utilized to estimate significant changes (Katoch 2018)

Himani Maggo Kumar's (2017) Entrepreneurship training plan is an excellent program that emphasizes business people's growth to promote the industry's development. EDPs are executed with the belief that people can be improved. Their perspective may be altered. The prevailing view that only individuals with a commercial family history could become successful businesspeople has given way to the belief that only those who earned skills via experience and knowledge can become entrepreneurs. Such knowledge and skills can only be acquired via EDPs. This article focuses on how EDPs contribute to the growth of businesses and hence business, whose organizations work in this area, what deficiencies exist in current EDPs, and how they might be eliminated to boost entrepreneurship development.

The perception of every development plan may be measured by its outcomes. To determine the success of an entrepreneur development program, it will be necessary to decide how many of the project's participants have released and developed their businesses. Approximately 686 organizations operate hundreds of EDPs across India, and countless people have engaged in these programs. Here, it is necessary to determine how many people have launched their businesses. Approximately sixteen studies have been carried out so far by diverse organizations and people. The most current research was done in Hyderabad by the Enterprise Indian Institute of Technology (**Uplaonkar and Biradar 2015**)

2.2 RESEARCH GAP

The literature review highlights the importance of assessing the perception of entrepreneurship development programs in specific regions and identifying the factors that influence their success. However, there is a lack of research on the perception of KVIC's support in the Wardha district, which has the potential to contribute significantly to the rural economy. Therefore, this study aims to address this research gap by evaluating the perception of KVIC's entrepreneurship development programs in the Wardha district. The study will focus on assessing the impact of KVIC's support on the success of small businesses in the district, identifying the challenges faced by entrepreneurs, and evaluating the perception of the support provided by KVIC in overcoming these challenges. The findings of this study will help to fill the research gap and contribute to the existing literature on entrepreneurship development programs and rural development in India.

3.1 RESEARCH METHODOLOGY

The study used primary and secondary data collection survey method design to collect data from the key respondent. Using survey design is considered to be relevant in a survey because it involves collecting data which can then be used to answer the research question in the current state of the object of the study. In this study, there were 500 key respondents selected and primary data were collected using a questionnaires survey

from the Wardha district. Secondary data was collected using international journals, articles, research, review papers, documents, and others.

3.2 STATEMENT OF HYPOTHESES

Theory denotes hypotheses or presumptions expressed by research in the form of a written question or statement that the investigator wants to test by doing the investigation. To guide the course of study, a premise may be articulated as a statement or a series of assumptions. The present study investigation is predicated on the noticed belief. It is considered that:

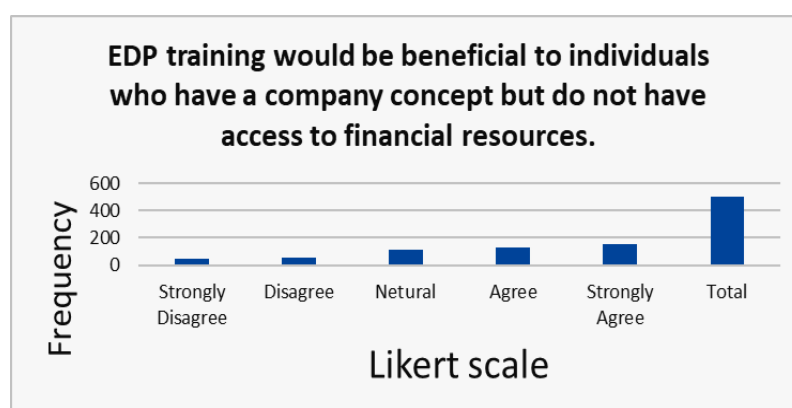
- KVIC has succeeded in establishing a favorable environment in rural regions for the Development of Khadi Industry and Employment Creation.

4.1 DATA ANALYSIS AND INTERPRETATION

The data has been collected through questionnaire filled by entrepreneurs who were active participants of EDP of Khadi and Village Industries commission in Wardha City. The questionnaire were framed and focused on perceptual study i.e. pre training study of entrepreneurs. The Likert Scale has been given to the respondents and they have to tick to the level of agreement of the statements resulted into following analysis and interpretation.

- 1) EDP training would be beneficial to individuals who have a company concept but do not have access to financial resources. EDP training would be beneficial to individuals who have a company concept but do not have access to financial resources.

Graph 4.1



As shown in the chart above, the rating for EDP training would be advantageous for those with a business idea but lack financial resources. The total respondent is 500. As well as the mean value is 3.47, the Median is 4.00 also Std. The deviation value is 1.484. Most of the respondents think that this EDP training would be beneficial to individuals. 31.4% of respondents rated Strongly Agree to this EDP training. Almost 11.4% of respondents rated Disagree with this EDP training. And only 48 respondents

gave a rating of Strongly Disagree to this that EDP training would not be beneficial to individuals.

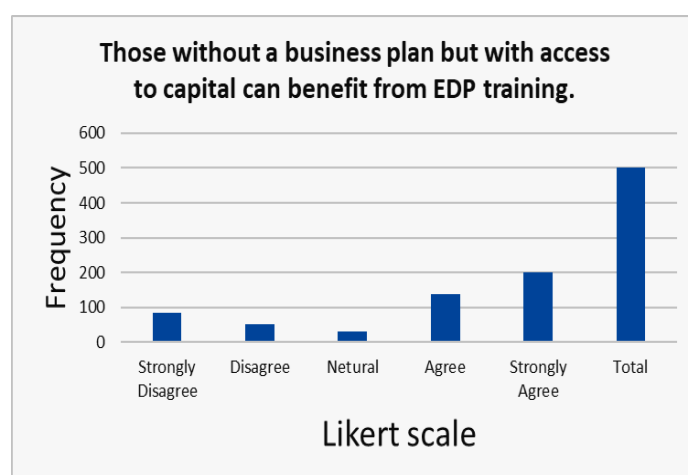
2. EDP training will emphasize your ambition and self-confidence as a successful entrepreneur. EDP training will emphasize your ambition and self-confidence as a successful entrepreneur.

Graph 4.2



According to the above study considers, EDP training will place a greater emphasis on your ambition and self-confidence. There is a maximum of respondents Agree with 151, Strongly Disagree is 42 respondents also, and disagree has 61 and Strongly Disagree is 42.

3. Those without a business plan and access to capital can benefit from EDP training.



Graph 4.3 - Those without a business plan and access to capital can benefit from EDP training

As seen in the above table, 16.6% of respondents answered that “Strongly Disagree” means they think without a business plan but with access to capital cannot benefit from EDP training, 10.2% of respondents answered that “Disagree” means they feel without a

business plan but with access to capital cannot benefit from EDP training., 6.0% respondents answer that “Neutral” means they think without a business plan but with access to capital can help or may not be from EDP training, 27.4% respondents answer that “Agree” means they think a business plan but with access to capital can benefit from EDP training and 39.8% respondents answer that “Strongly Agree”.

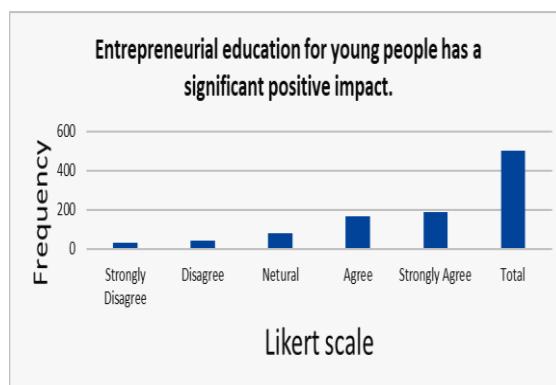
4.EDP has a significant influence on the perception and motivation to become an entrepreneur.



Graph 4.4 EDP has a significant influence on the perception and motivation to become an entrepreneur

EDP significantly influences the perception and motivation to become an entrepreneur there. The highest respondent, 42.4%, strongly Agree as well, and the lowest respondent, 8.0%, strongly Disagree.

5. Entrepreneurial education for young people has a significant positive impact.



Graph 4.5 Entrepreneurial education for young people has a significant positive impact.

The question about Entrepreneurial education for young people has a significant positive impact. The answers were divided more or less uniformly: respondents indicated that companies that provide Entrepreneurial education for young people have a significant positive effect. Strongly Agree 37.8%, Agree – 32.8%, Natural – 15.4%,

and Disagree are 7.8%, i.e. Entrepreneurial education for young people has not had a significant positive impact.

5.1 CONCLUSION

This study aimed to examine the perceptual efficiency of Khadi and village industries in Wardha district. Khadi and Village Industries Commission's entrepreneur development programs (EDP) are designed to foster business skills among the populace. In other terms, it relates to the acculturation, growth, and refining of entrepreneurial abilities required for an individual to build and operate a business effectively. The Khadi and Village Industries Committee have shown to be vital and advantageous since the organizations' goods are often sold directly or via the administration. Furthermore, the agency arranges global exhibitions to promote the items and provides financial help to organizations and people for the development and guidance of Khadi and Village businesses by supplying ideas, prototypes, and other technical data. The study concluded that KVIC has succeeded in establishing a favorable environment in rural regions for the Development of Khadi Industry and Employment Creation. The perceptual study among entrepreneurs has positively impacted the performance of the parties involved in the study.

5.2 SUGGESTIONS AND RECOMMENDATIONS

- The Researcher recommended that integrating KVIC unit with industrial associations, such as the Wardha Industrial Association, etc., will get real-time assistance in developing entrepreneur's business skills.
- Rather than employing traditional methods, it is recommended to build a thinking process for inventing new ideas for developing new goods, new methodologies of manufacturing, and concepts/techniques by considering client trends and desires.
- It is recommended that founders acquire skills and experience such as organizational abilities, patience, tenacity, and lengthy participation in their firm to achieve achievement in entrepreneurial development and sustain their level of energy through company ups and downs.
- It was mentioned that this investigation's focus is confined to examining the expansion of entrepreneurship in Wardha. Due to time and crisis constraints, the scope of the inquiry was restricted. Nonetheless, this occurrence is so significant that it should be analyzed from some perspectives. It would be fascinating to broaden the field of study to include other types of KVIC and businesses, such as entrepreneurs, etc.

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REGIONAL VARIATION OF SLUMS, INFLUENCED BY THE MIGRATION IN THE MEERUT CITY

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Midnapur, W.B.

INTRODUCTION

Slums are an essential urban phenomenon worldwide and are strung at the lowest rung of the socio-economic array. They are the shadow zones of urban existence where poverty, crime, aesthetic pollution apart from other types of pollutions, disease and deprivation co-exist. Nevertheless they provide the essential labor-force to work in the industrial and commercial sectors of the cities, not to speak of the service sector which can also be stretched over to cover domestic help in a big way. Physically, they display a dense packing of houses and a further dense clustering of population within the houses. This in turn, is associated with various physical and social problems. The physical problems manifest themselves in the form of open drains, disorganized layout of structures and roads and apathy in the disposal of garbage.

Earlier Migration has been seen as having negative influence on a city (UNICEF 2011). It has been proved later that it affects positively with remittances contributing in both backward and forward linkages. People move to urban areas due to economic opportunities followed by cultural, social, environmental factors (Nair 2011, Singh 1994). Migrants contribute to the development of their place of origin by sending remittances, which diversify risk, increase consumption capacity, provide financial support and knowledge (Dev 2011). The migrants stay largely in slums, which are environmentally unsustainable habitats (Kumar 2006, UNFPA 2007).

Most of the in-migrants who are coming from the out of the city they also strongly effect upon the land, health, economy, daily labor, and so on. Basically notified and none notified slum dwellers are facing so many problems. Thus slums area are much effected by culture, economy and education and overall the slum dwellers strongly facing very bad situation.

Our study area is the Meerut city which is situated from the 85 kms away from the Delhi. This city is more developed than the other city of this area. It is a large populated city in the Uttar Pradesh state. Here, in the city 185 slums are situated and 114 no. of notified and 71 none notified slums are situated. Here various types of migration also looked such as Intracity Migration, Rural Migration, Inter State Migration and intercity migration.

There are three slum areas in the city which have attached slum population from other slum areas of the city. There are about 21 villages around Meerut City from where

people have migrated and settled in the slum areas of the city. These slum areas are Abdullapur, Jaibheem Nagar, Kaliagarhi, Kazipur, Lisari, Murlipur Gulab, Malyana, Nanglatashi, Shivlokpuri, Sofipur, Kaserukhera, Mohanpuri and Bhagwatpura. Some other slums of Central Zone are also there in these lists which are represented by Mohanpuri and Bhagwatpura). The slum areas of Meerut City have incidences of Inter City Migration from within the vicinity of 150 km. only. The cities from where intercity migration has taken place are Garhmukteshwar, Hapur, Aligarh, Baraut and Muzaffarnagar. The slums to where people from other cities have migrated are Kaliagarhi, Kajipur, Mohanpuri (old), Lisari, Malyana, Sofipur, Nangla Tashi and Murlipur Gulab. Employment is the main cause of intercity migration. There are only two slums where migration from other state are noticed.

REVIEW OF LITERATURE

Siddharth Agarwal, Shivani Taneja and Pradeep Patra (2005): They study to indentify and assess slums for understanding vulnerabilities of urban poor pocket for more equitable health programming by using a comprehensive assessment metric.

P. Sujatha and P.V.S Janardhanam (2010): This study provide spatial-information on an extent of poverty by slum / many slum residence, according to the census; demography and socio- economic characteristics of slum / non slum residency and the urban poor household living condition, health and health care for the Chennai City. This study is a future planning for urban health / living condition.

Harron Sajjad (2014): He explained in the paper that slum condition index (slum CI) of notified and non-notified slums for assessing relative status of living conditions and health status of slums dwellers in a fast growing city. Slums CI as a composite index of its four components of households environment index (HECI), Social condition (SCI), Economic condition index (ECI), and health condition index (HCI), worked as an effective tool for identifying not only the slums requiring attention but also priorities required for the development of health and smart city. This study has also identified for the notified slums which have better slum conditions in Meerut City.

Vanda Felbab Brown (2011) explained about organized crime and urban violence in Latin America. This study presents some of the key law enforcement and socio-economic Policy lessons from one type of approach. In this study here a Government physically retakes urban spaces ruled by criminal or insurgent groups where state presence had been sporadic, limited or sometimes altogether non-existent. It focus on Latin America specifically Brazil, Mexico, Colombia and Jamaica but its finding apply broadly and are informed by similar dynamics between non-state actors and state policies in places like Karachi (Pakistan) and Johannesburg, (South Africa).

B.L Singh (1990) discussed about religion, cast, occupation, income, experience, and bank saving of slums dwellers in Varanasi city.

Gist (1975) - Studies that slum in western countries usually refers to area in transition near the C.B.D (Central Business District) as a result of the continuous in version and succession of improvised migrants, with houses once were considered adequate but now are in the process of physical relation due to low rents and poor maintenance. The ecology of the Indian slum is different from that of the western slums. The closest approximation in English India refer to a slum are squatter.

OBJECTIVES

1. To study deprivation of the slum dwellers.
2. To study the increases criminal activity by the in-migrant slum dwellers.

Methodology: I collected both primary and secondary data from the urban and the village area of the Meerut city. I used structured questionnaires to collect the primary data from the 185 slums area which are situated in 5 zone of Meerut city. Random sampling method used to collect the sample. Total sample size are 185 slums in this study (114 of notified slums and 74 of none notified slums). To obtain the analysis various statistical tools were applied.

RESULT AND DISCUSSION

In the slums area of the Meerut the primitive slum dwellers are deprive to get the civic facility. In-migrant people who are coming from the outside they are create so many problems such as the population density are high, the sanitation problems, health problems, education problems etc increases day to day.

Regional Variation of Slums Population and Migrant Population in Meerut City

Zone	No. of Slum	Slum population	Migrant Population
North	31	168865	100363
South	21	143026	70729
East	10	76403	26379
West	30	154925	65467
Center	93	682347	211104
	185	1225566	474042

In this table we are looking that in the north side of the slums are more effected by the in-migrant of the Meerut city and after that more affected slums in south zone. Western zone and eastern zone of the slum are more affected after the northern and southern zone of the slum. Center zone of the slum area very less affected than the other four zone of the slum.

INCOME AND SAVINGS

After migrating to Meerut, a remarkable change has been observed in the earnings and savings of slum migrants. Before migration, 78% were earning less than one thousand

rupees per month, 16% between Rs. one to two thousand per month, followed by 6% earning between Rs. two and three thousand. Since the earnings are low, only 62% could save less than Rs. one thousand per month. After migration, 84% respondents started earning more than Rs. three thousand per month due to availability of work, engagement in more than one occupation and regular wages. Majority are engaged in informal or unorganized sectors. They get engaged in more than one occupation so as to earn extra income. The per capita expenditure in Meerut is more, which reduces the savings.

Change in Income and Savings of Respondents after Migration

Income Level (in Rs. Per month)	Income (in %)		Saving (in %)	
	Before Migration	After Migration	Before Migration	After Migration
< Rs. 1000	78	-	100	38
Rs. 1,001 to 2,000	16	2	-	12
Rs. 2,001 to 3,000	6	14	-	20
>Rs. 3,001	-	84	-	30
TOTAL	100	100	62	100

Status of Loan

Marginalised section of society resorts to loan in order to meet their household expenditure, repayment of debt and for ceremonial purposes. Only 61 respondents have taken loan. Before migration, only 23% people availed loan for household consumption due to crop failure, ceremonial purposes and repayment of debt at their native place too. The main source of taking loan is relatives (71%) or friends (21%). Only one person took loan from co-operative bank so as to repay the debt. After migration, 77% had taken loan for the first time. In the absence of linkage with formal institutions, people took loan from relatives (56%) followed by friends (20%), local committee members (16%). Only 8% used bank for availing the loan facility. The loan amount varies between Rs. fifty thousand to one lakh for 27% respondents, whereas 26% had taken loan less than Rs. fifty thousand.

Status of Loan Before and After Migration

Amount	Before Migration	After Migration	Total
< Rs. 50 thousand	04	22	26
Rs. 50thousand to 1lakh	08	19	27
> Rs. 1lakh	02	06	08
Total	14	47	61

High income results into high expenditure on social and economic purposes. One third of the people took loan to meet their household expenditure, followed by ceremonial purposes (29%). Only 21% people used the loan for productive purposes, like purchasing of land at their native places. People below the poverty line are in the vicious circle of poverty. People (15%) availed loan even for repayment of debt. The percentage of people as well as their reason to take loan is different from cluster to cluster.

Perceived Change in Migrant's Lives

Social, cultural and economic changes occur when a person is influenced by city culture. Economic changes are the dominant among all changes. Out of total sample, 58% respondents reported economic changes in terms of increase in incomes and saving. About 28% respondents feel social changes, which include change in daily work schedule, sleeping habits and psychological insecurity after migrating to Meerut. Cultural change in terms of changes in food consumption habits, addiction to tobacco, smoking and drinking were reported by 14% respondents.

Occupational Structure

The Occupational structure changes when migrants move from their native place to Meerut. The Occupational change is from unskilled to skilled workforce and primary activities to secondary and tertiary activities (Bhattacharya, 1998). A weak correlation (0.34) exists in the occupation before and after migration to Meerut. Out of 53 agriculturists, only 26% settled in resettlement colony are practicing it. After migrating to Meerut, they are first engaged in unorganized sector and get relocated around the Meerut city at a distance of more than 30 kms from their earlier workplaces. Ample amount of agriculture land is available as it is located on the periphery of Meerut and surrounded by villages. Therefore, people adopted their traditional occupation agriculture as an occupation in the nearby area so as to cut down the expenditure on transportation and reduce the travel time. Rest of them are engaged as local vendor (28%), domestic servant (19%), rickshaw puller (15%), and helper (12%) whereas those who were rearing livestock (18%) in rural areas are now engaged as local vendor, mason, shop keeper and rickshaw puller.

Majority of the migrants are engaged in unskilled workforce. Significant concentration (76%) of respondents in age group of 21 years to 40 years is working mainly in unskilled occupation, i.e. as domestic servants, local vendors and agricultural labourers. They are engaged in more than one occupation. This age group people are more mobile, have stamina to do hard work as well as are willing to change the place of stay. Rest is engaged as skilled workers, such as driver (16%), helper (13%) and peon (3%). The workers in the age group of 15 to 20 years are mostly skilled workers (72%), because most of them try to maintain the balance between education and job.

Educational and Health Structure:

Educational facility more reft in the activities of migration. The previous educational institutes of basic education for the 185 slums are not enough for the education. The notified and non notified slum dwellers are not get proper primary and secondary education from the local institute because the scarcity of the institute. After migration this type of problems are increases firstly because institute number are same and students' increases firstly. So, most of the students are deprived to get the basic education and they also engaged as a daily labour. Most of the slum dwellers of the Meerut city engaged in earning money for their need.

As well as the health facilities remain same because primary health centres very less number for the previous slum dwellers. After the migration in the Meerut city the slum dwellers are more increase than the previous time .so, more people of the slums deprive from the health facility.

Slum Zone wise Increases of Illiteracy and Criminal Activity due to Migration:

In the Meerut slum area very much effected in child education because before migration process the scope of get the basic education scope are very less. The number of educational institute are very little bit and the slum area student cannot get the education and they engaged in the other field for earn some money as an illiterate. So, after migration this type of scope reduces due to over student in the institute.

So, criminal activity of the student more increases before the migration.

Slum Zone wise Increases of Illiteracy and Criminal Activity:

Slum zone	Before Migration			After Migration		
	No. of child	% of literate student	% of criminal activity	No. of child	% of literate student	% of criminal activity
North	21115	60	20	45000	52	30
South	17200	55	25	42000	40	35
East	11350	80	05	23700	65	20
West	9428	62	18	44588	38	40
Center	102130	48	30	180522	42	38

Here we are looking that the literacy rate and the criminal activity increases day to day due to migration. Many people come to the Meerut city and they did not get the proper education. So, they engaged in many kinds of illegal activity. They are chosen so many ways to earn money. Here we are looking parallel that illiterate people increases and the criminal activity increase. Here looking that where literacy rate going down below that slum zone very much positively connected with the criminal activity. Other way where literate rate increase that place fall down criminal activity. After migrations process that

type of criminal activity increases because the rate of illiteracy increases due to lack of education.

Various type of Criminal Activity in the Slum Area:

NAME OF THE CRIME	% of criminal activity	
	Before migration	After migration
Sexual harassment	08	10
Extortion	02	05
Threat of death	05	15
Gambling	20	05
Drug and Alcohol addiction	35	38
Other illegal activity	25	27
Total	100	100

In this table we are looking that the slum dwellers are engaged in various type of criminal activities. Before migration most of the slum area people addicted in alcohol and drug. After the alcohol and drug addiction they engaged in the gambling and the other illegal activities. After migration the slum dwellers highly engaged in drug and alcoholic addiction. The threat of deaths, sexual harassment, extortion, gambling and the other illegal activity also increases than the before migration process.

CONCLUSION

We can reveal from the discussion that all the slum dwellers those are situated in the Meerut city before the migration process they are extremely deprived from the civic facility in the slum area. The notified and non- notified slums people have faced so many problems in savings of their daily life and changing the earning pattern. Their wages are changed due to sufficient labor. The loan process has changed due to the pressure of the migrant people. The education and the health facility have break down for the over slum dwellers due to in-migrant. Most of the slum people unable to get proper health and education facility in the government sector. They have no enough money to get the health and education facility from the private sector. The notified and the non- notified slum dwellers are unable to hold their own culture and spirituality after in-migration in slum area in the Meerut city. The rate of the criminal activity of the slum dwellers increased after the in-migration. The slum people are engaged so many criminal activity and they create a black world behind the fare world. I think that Government should take necessary action for this purpose and given all the slum dwellers proper education and the health facility. Local administration create a rule for the in- migrant people. If we could not control the slum dwellers deprivation, day to day increase in criminal activity the Meerut city will harm very soon.

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IDENTIFICATION AND ANALYSIS OF BLOCK LEVEL DEVELOPMENT DISPARITIES IN UNDIVIDED MEDINIPUR DISTRICT, WEST BENGAL

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INTRODUCTION

Development is a multi-faceted phenomenon, involves the reorganization and redistribution of socio-economic facilities throughout the region; and the transfer of resources into the backward area, for enhancing the quality of life of the people (Sultana and Aktar, 2016). The Distribution of social facilities in an equitable manner (Rishi and Ray, 2020) is the prime concern for achieving balanced regional development of a nation (Krimi et al., 2010), though these facilities are often evenly distributed in a proper planning due to some socio-political consequences (Ahmed and Hussain, 2013). Physical landscape, soil, availability of water, availability of natural resources are also responsible for regional disparity, but the availability and accessibility of social amenities often helps the people of that region to increase their per capita income, the standard of living, consumption patterns etc. (Krimi et al. 2010).

In India, these regional disparities in socio-economic development are seen among different states, districts and even in small areas and small social groups within the districts (Planning Commission, 2013). Social development also takes a remarkable part in the overall development of the region (Parveen, 2016). The availability of proper social facilities, like- health, education, infrastructure, employment opportunity etc. has been responsible for the social development of a region that is also responsible for balanced regional development across the nation, state, district or local administrative level. There is number of studies that found wide disparities in the level of socio-economic development in different regions of India, including different districts (Ohlan, 2013). The number of relevant research work done by various researchers (Das, 2018; Ohlan, 2013; Pradhan and Kumar, 2015; Pradhan, 2017; Raman and Kumari, 2012) shows that inter-district disparities in the level of socio-economic development are very crucial among different states of India. Their study found wide micro-level regional disparities within the study area. The work of different authors like-Karmakar et al., (2020), Rishi and Ray (2020), Sam and Chakma (2016), reveals a wide range of socio-economic disparity at block-level within the state of West Bengal. All the studies suggested that backward or low-developed blocks required improvement in most of the socio-economic indicators for improving their overall socio-economic development.

In consideration of the above-mentioned scenario, the present study is an attempt to identify and analyse block-level regional disparities based on thirty sub-dimensional indicators under three dimensions i. e. education, health and infrastructure within the

undivided Medinipur district of the state of West Bengal. It is hoped that the study will give some important insight regarding block-level regional imbalances and attracts planner in formulating appropriate planning strategy in a relatively disadvantaged area under study.

OBJECTIVE OF THE STUDY

The main objective of the study is to identify and analyse the pattern of block-level spatio-temporal disparities and advancement in the level of development in terms of its Educational facility, Health facility and Infrastructural facilities at two temporal scales i.e. 2001 and 2011.

METHODOLOGY

Study area: The proposed study includes the Undivided Medinipur district, the most diversified southern region of the state of West Bengal. It is located between 21°36'35"N to 22°57'10"N latitude and between 86°35'50"E to 88°12'40"E longitude. The study area was bifurcated in 2002 and 2017 into Purba Medinipur, Paschim Medinipur and Jhargram districts to facilitate proper administration and better functioning development initiatives. At present, there are fifty-four blocks under the study area including eight blocks that fall under the newly formed Jhargram district, twenty-one in the jurisdiction of Paschim Medinipur district, and twenty-five blocks under the jurisdiction of the divided Purba Medinipur district.

In consideration to the physiography, the Western part of the study area, popularly known as Jangalmahal, is a fringe of the Chotonagpur Plateau and consists of a hard laterite zone with undulated topography, whereas the Eastern portion has been formed out of the alluvial deposits borne by the river Hooghly and its tributaries, and coastal influences.

In consideration to the demography, the blocks of western region is mainly dominated by Schedule Tribe people, and the few northern blocks have high proportion of Schedule Caste people, whereas eastern part of the study area is the most populated area settled by large proportion of general caste population. The location of the study area is shown in Figure 1.

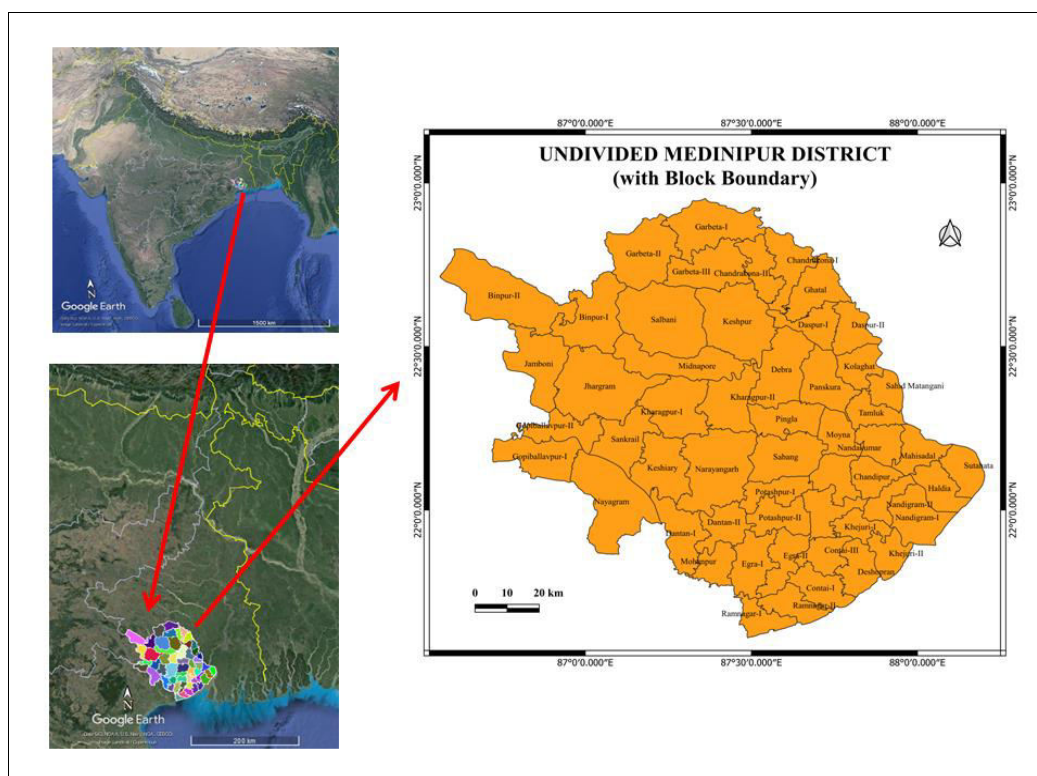


Figure 1: Location map of the study area with block boundary

Data Source: The study has been done based on secondary data collected from District Census Handbook, Midnapore district (2001), District Census Handbook, Paschim Medinipur district (2011), District Census Handbook, Purba Medinipur district (2011), District Statistical Hand Book, Medinipur district (2001), District Statistical Hand Book, Paschim Medinipur district (2010 & 2011 Combined), District Statistical Hand Book, Purba Medinipur district (2010 & 2011 Combined).

Selection of Indicators: As the notion of development is a multidimensional phenomenon, the level of development should be measured based on several relevant and feasible variables together (Kumar and Rani, 2019; Majumder, 2021; Ohlan, 2013). Several studies used different indicators depend on the availability and accessibility of the relevant data (Kumar and Rani, 2019). The present study included thirty correlated sub-dimensional variables under three dimensions, i.e. health, education and infrastructure for the construction of the Composite Development Index (CDI). The selected variables are summarized in Table 1.

Table 1: Selected list of major domains and variables for the study

Domains	Variable ID	Variable Explanation	Domains	Variable ID	Variable Explanation
Educational Facilities	X1	Percentage of Male literacy	Health Facilities	X16	Achievement in Universal Immunization Programme per 10,000 population
	X2	Percentage of Female literacy		X17	Number of Animal Development Aid Centre (ADAC)
	X3	Number of Primary School Per 10,000 Population		X18	Number of Veterinary Personnel
	X4	Number of Primary School Per 100 Sq. Km.	Infrastructural Facilities	X19	Percentage of Total Worker
	X5	Pupil-Teacher ratio at Primary School		X20	Percentage of Household Industries Worker to Total Worker
	X6	Number of High School Per 10,000 Population		X21	Percentage of households living in Permanent Pucca Houses
	X7	Number of High School Per 100 Sq. Km.		X22	Percentage of households having availability of Improved Drinking Water
	X8	Pupil-Teacher ratio at High School		X23	Percentage of households having availability of Electricity for domestic uses
	X9	Number of Special & Non-formal Education		X24	Percentage of households

		Institutions Per 10,000 Population			availing Banking services
	X10	Numbers of Mass Literacy Centre Per 10,000 Population		X25	Percentage of Irrigated Area to Total Cultivable Area
Health Facilities	X11	Number of Primary Health Centre per 10,000 population		X26	Number of Post Offices per 10,000 population
	X12	Number of Health Sub-Centres per 10,000 population		X27	Number of Fair Price Shops per 10,000 population
	X13	Number of beds in medical institutions per 10,000 population		X28	Number of Fertilizer depots
	X14	Number of doctors in medical institutions per 10,000 population		X29	Number of Commercial and Gramin Banks per 10,000 population
	X15	Number of Patient treated in govt. health centres per 10,000 population		X30	Number of Cooperative Credit Societies per 10,000 population

Choice of methods of Analysis: Researcher employed various techniques and different methodologies using diverse variables to assess the disparities in the socioeconomic development of a region (Majumder, 2021). The most used methods include weighted and unweighted Aggregation methods, Equal weightage multi-dimensional disparity Index (Majumder, 2021), Composite development index (Narain et al., 2007; Rishi and Ray, 2020), Composite score method using Z score transformation (Karmakar et al., 2020), Deprivation method (Ahmed and Hussain, 2013; Bishnoi and Aneja, 2008; Kundu and Mondal, 2012), factor analysis, Principle Component Analysis (Das et al., 2021; Rishi and Ray, 2020), Wroclaw taxonomic method (Kumar & Rani, 2019; Ohlan, 2013), Ranking aggregation method, Monetary index etc. The present study is based on the aggregation of selected variables with equal weightage to compute the Composite Development Index using the Deprivation method. The study follows the methodology used in UNDP's Human Development Index (HDI) to normalize the selected indicators under three parameters. The equation and explanation are given in table 2.

Table 2: Formula and Explanation for standardization of the variables

Theory	Explanation	References
(for Positive relationship) $S_{ji} = (x - x_{\min}) / (x_{\max} - x_{\min})$ (for Negative relationship) $S_{ji} = (x_{\max} - x) / (x_{\max} - x_{\min})$	<ul style="list-style-type: none"> • S_{ji} denotes the standardized score • x is the Actual value • x_{\min} is the Minimum value • x_{\max} is the Maximum value 	Ahmed and Hussain(2013), Bishnoi and Aneja (2008), Kundu and Mondal (2012)

The methodological steps for the computation of the Composite Development Index have been shown in the flow chart (Figure 2).

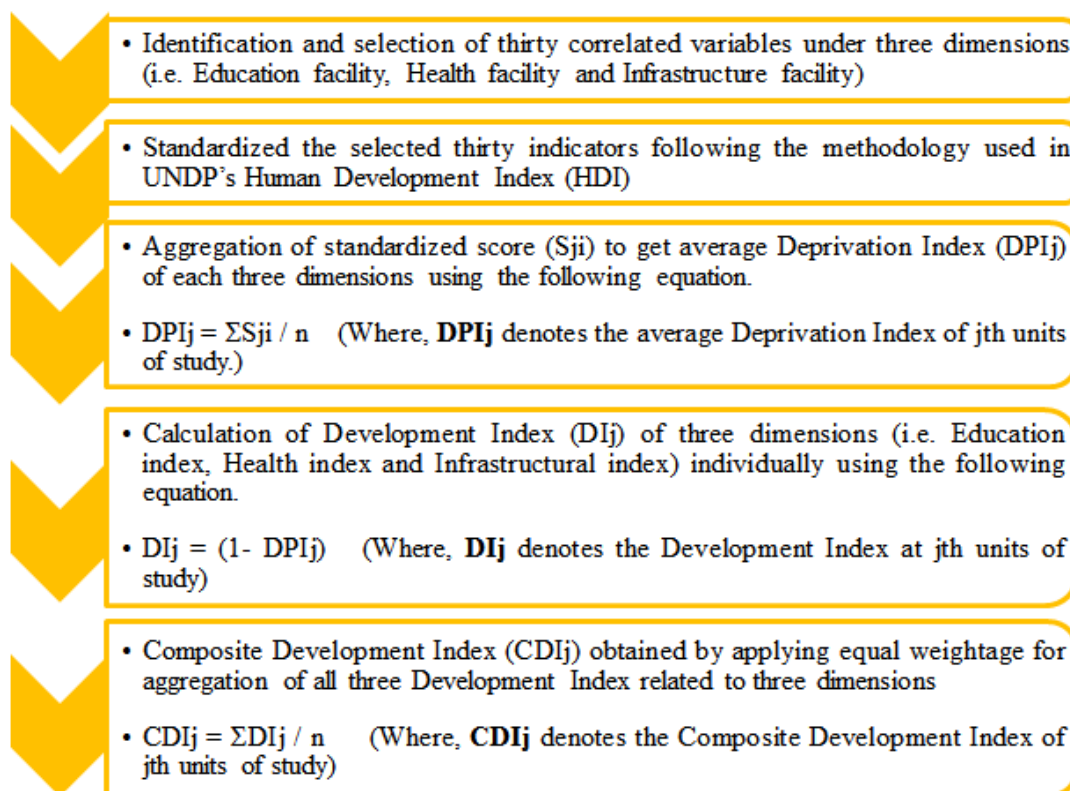


Figure 2: Methodological steps of computed Composite Development Index

RESULT AND DISCUSSION

Level of Educational Development: Educational facilities positively influence on the developmental process of a region (Das, 2018; Majumder, 2021) and hence, educational facilities should be evenly distributed from the micro-level to the macro-level for balanced regional development. In the present study, the level of educational facilities has been assessed using ten indicators (as symbolized by X1 to X10) for two different periods i.e. 2001 and 2011. The calculated Education Index (EI) represents a wide inter-

block disparity in the availability of educational facilities (Very low to Very high condition) within the study area.

The study reveals that, the availability of educational facilities per ten thousand populations is very high in Sutahata (0.592 & 0.661) block for the year 2001 and 2011 respectively. In another side, availability of educational facilities is very low in the Medinipur (0.247) block in the year 2001 and Kharagpur-I (0.189) block in the year 2011. In respective to other blocks, it can be said that blocks of Purba Medinipur district, situated in the eastern region showed comparatively high level of educational facilities for the both temporal scale. The figure 3 also concluded that western blocks included tribal dominated parts of Jhargram and Paschim Medinipur district represents less availability of educational facilities, which seem to have deteriorated condition from the year 2001 to 2011.

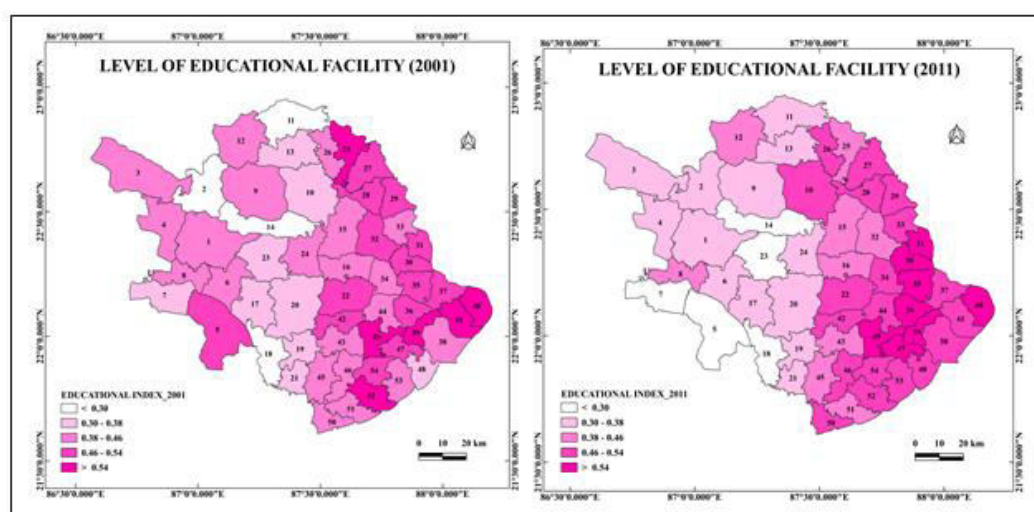


Figure 3: Inter-block spatial pattern of level of Educational Facilities (2001 & 2011)

In regarding area and population, table 4 shows that thirteen blocks including 27.95 percent of area and 22.50 percent of population represents low to very low condition in respect to level of educational development in the year 2001, which covers eighteen blocks and 44.96 percent of area and 27.98 percent of population in the year 2011. In regarding the high to very high level of educational development twenty blocks including 24.98 percent of area and 34.53 percent of population shows the same condition in the year 2001, which increases for twenty-seven blocks including 31.89 percentage of area and 47.80 percentage of population in the year 2011. This depicts that disparities in respect to educational development are present for both the census year, where few blocks improve, but a number of blocks show that educational facilities are not equally improved with the growth of population and over time of that area.

Level of Health Development: Accessibility of healthcare facilities and availability of health infrastructure plays a crucial role in the development of a region. But these health facilities are not evenly distributed (Majumder, 2021), rather it is seen that modern

healthcare facilities have concentrated surrounding the urban centres. Therefore, it is seen that rural area suffers due to lack of availability and accessibility of proper healthcare services and facilities; and health worker also be insufficient in that area.

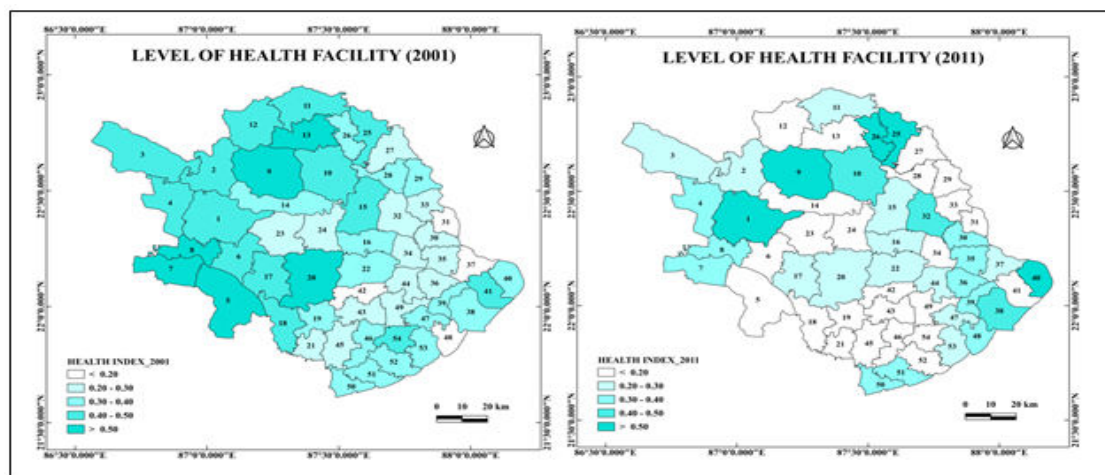


Figure 4: Inter-block spatial pattern of level of Health Facilities (2001 & 2011)

In the present study, an attempt has been taken to measure inter-block healthcare facilities in the year 2001 and 2011 by aggregating the standardized score of eight sub-dimensional variables (as symbolized by X11 to X18) by the help of the calculated Health Index (HI). The blocks have been classified into five development categories i. e. Very low, Low, Moderate, High and Very high accordingly the calculated values (Figure 4). The calculated health index score ranges from very low (0.185) at Khejuri-II block to very high (0.582) at Garbeta-III block in the year 2001. In the year 2011, the scenario shows a very degraded and fluctuating condition (See Figure 7), where maximum blocks represents very vulnerable condition in respect to the availability of health facilities per ten thousands population. The block Kharagpur-I shows very low value (-0.306) and Chandrakona-II represents very high value (0.822) in the year 2011.

For the overall consideration, in the year 2001, a total of eighteen blocks out of fifty-four shows very low to low levels of health facilities, which covers 22.77 percent of the study area and 34.56 percent of the total population. In the year 2011, the scenario changed which includes thirty-five blocks, 62.59 percent of the area and 62.16 percent of the population under very low to low levels of health facilities. In another side, twenty blocks represents high to very high situation with 49.25 percent of district area and 31.51 percent of district population in the year 2001 which reduced into eight blocks including 16.94 percent of area and 14.28 percent of district population in the year 2011. It is evident from this study that healthcare facilities shows a deteriorated conditions from the year 2001 to 2011 in respect to the rate of population growth and required numbers of service centres in the study area. The study also reveals that huge number of blocks under Purba Medinipur district suffer from lack of health facilities,

which should be improved through proper governmental policies to reduce regional disparities regarding the above mention scenario.

Level of Infrastructural Development: The level of infrastructural facilities is positively and statistically significant for the overall socio-economic development of a country (Ohlan, 2013), as the availability and accessibility of proper infrastructure influence the well-being of the region which strengthen the development process throughout the nation. In this study, an Infrastructural Index (II) has been calculated by aggregating twelve standardized scores of selected twelve sub-dimensional variables (see Table 1, as symbolized by X19 to X30) and the blocks have been classified into five development groups based on the score of the index values. The figure 5 showed the spatial pattern of the level of Infrastructural development in the study area.

The table 3 depict scores of Infrastructural Index ranges from 0.197 (Nandigram-I) to 0.482 (Jhargram) and 0.241 (Khejuri-II) to 0.571 (Debra) for the year 2001 and 2011 respectively. It is evident from the table 4 that sixteen blocks including 22.28 percent of area and 29.09 percent of population shows low to very low level of infrastructural development in 2001, which was reduced in the year 2011 covering only eleven blocks, including the area of 19.96 percent and population of 15.36 percent. In regarding the high level to very high level infrastructural development there shows an improvement as numbers of blocks covers in these caterories increases from 22 to 26 from the year 2001 to 2011. The area also increased from 40.61 percent to 48.38 percent and population from 38.22 percent to 48.73 percent in the same level of development categories for the same temporal scale. So, it can be said that level of infrastructure facility improved a little during the period of the study area, though specific regional disparities also observed.

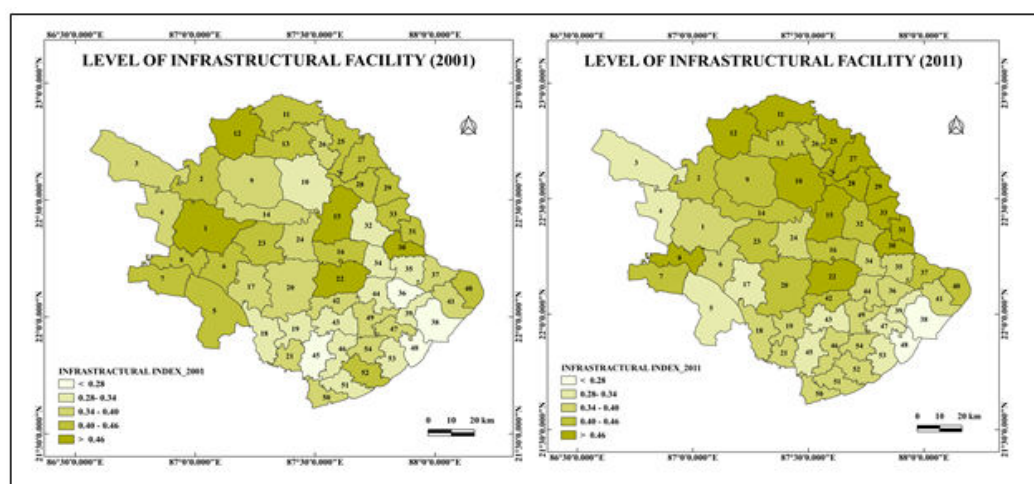


Figure 5: Inter-block spatial pattern of level of Infrastructural Facilities (2001 & 2011)

Level of Overall Development: To assess the overall level of development, a Composite Development Index (CDI) of fifty-four blocks have been formulated by

aggregating the values of the Education Index (EI), Health Index (HI) and Infrastructural Index (II) of two temporal scales i.e. the year 2001 and 2011. The table 3 and figure 6 represents the level of overall development in the undivided Medinipur district.

Table 3 depicts that the ranges of the Composite Development Index vary from 0.266 (Khejuri-II) to 0.469 (Chandrakona-I) and 0.106(Kharagpur-I) to 0.581 (Chandrakona-II) for the years 2001 and 2011 respectively. It is seen in the figure 6 that only khejuri-II (0.266) blocks shows very low level of overall development in the year 2001, whereas in the year 2011 total nine blocks including Kharagpur-I (0.106), Nayagram (0.170), Mohanpur (0.196), Dantan-I (0.202), Egra-I (0.258), Dantan-II (0.265), Garbeta-II (0.270), Midnapore (0.270) and Kharagpur-II (0.271) shows the same condition. The table 4 also shows that low to very low level of developed area increased from 10.61 percent to 37.03 percent with the population covering of 11.82 percent to 30.92 percent for the year 2001 to 2011 respectively. In another side the study reveals that the percentage of high to very high development area decreases from 60.27 to 34.59 with having the population of 51.29 to 40.06 percent for the year 2001 to 2011 respectively.

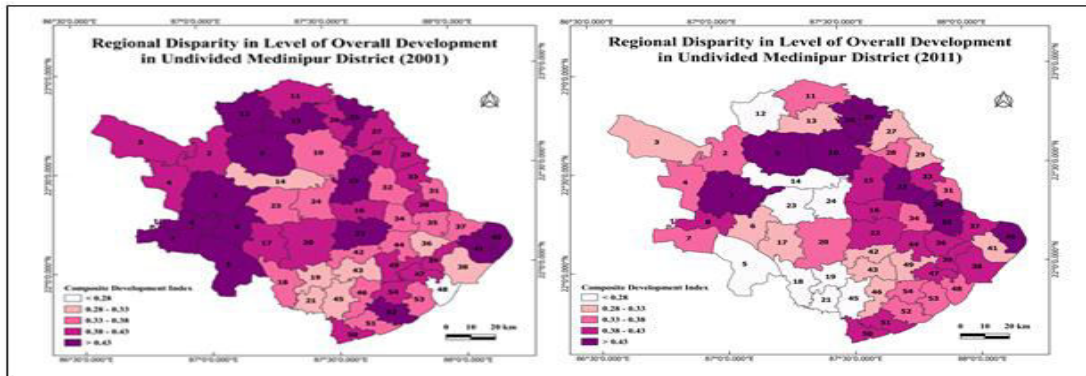


Figure 6: Inter-block spatial pattern of level of overall development (2001 & 2011)

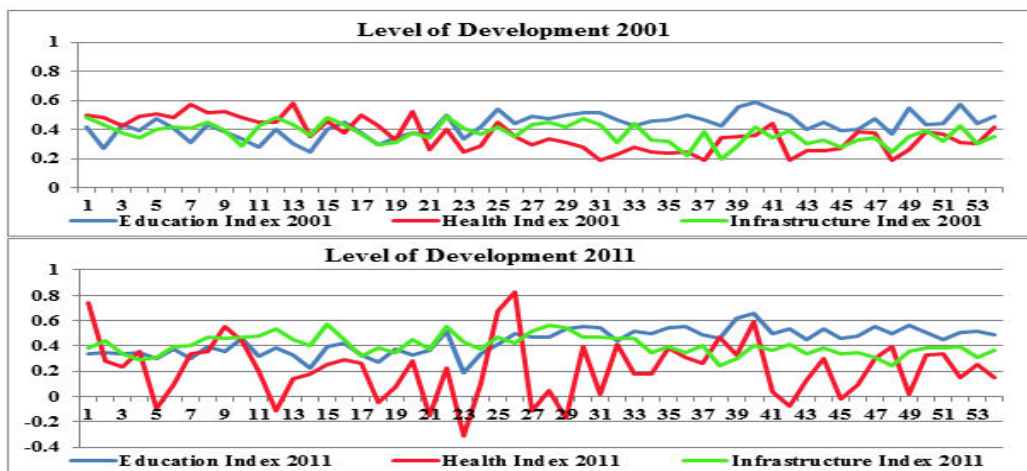


Figure 7: Education index, Health index and Infrastructural index across Overall Development

Therefore, it can be concluded that the level of overall development in respect to availability of education, health and infrastructure facilities have been decreased with respect to population growth and availability of the services. The figure 7 depicts the scenario of level of development of three dimensions and their disparities for the year 2001 and 2011. Therefore, it can be said that, considerable amount of regional imbalances, concerning the availability of educational, health and infrastructure facilities in seen throughout the study area and the availability of those facilities are not sufficient in respect to increasing population pressure in different blocks of the study area. The figure 8 reveals that the level of overall development reduced among the maximum blocks of the districts Jhargram and Paschim Medinipur for the year 2001 to 2011, whereas in respect to purbaMedinipur few block shows developed conditions.

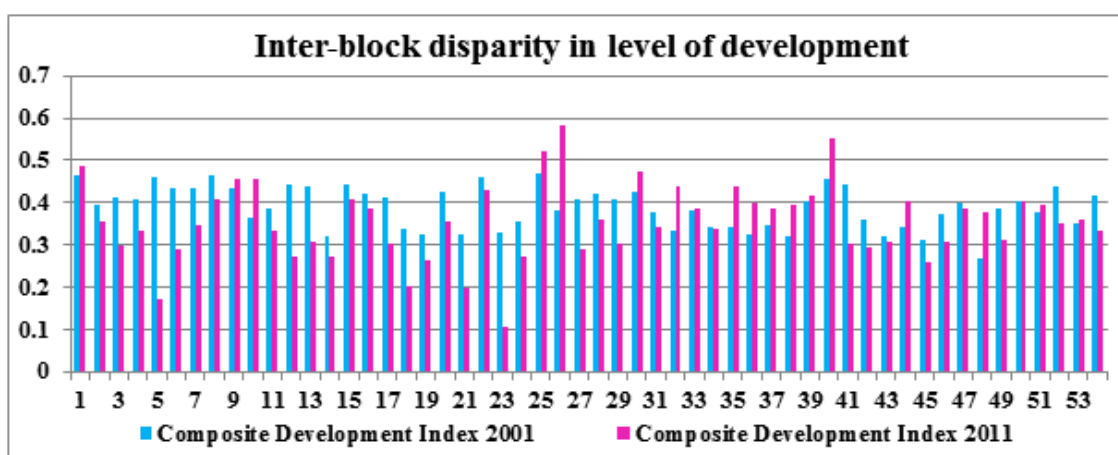


Figure 8: Inter-block temporal pattern of regional disparities in level of overall development

Table 3: Computed development index and level of development for the year 2001 and 2011

Sl. No.	C.D.Block	Computed index value 2001					Level of Development	Computed index value 2011				
		EI	HI	II	CDI	EI		HI	II	CDI	Level of Development	
1	Jhargram	0.416	0.500	0.482	0.466	Very High	0.333	0.742	0.387	0.487	Very High	
2	Binpur-I	0.271	0.478	0.435	0.395	High	0.343	0.283	0.437	0.354	Medium	
3	Binpur-II	0.429	0.425	0.379	0.411	High	0.337	0.230	0.334	0.300	Low	
4	Jamboni	0.390	0.491	0.345	0.408	High	0.351	0.360	0.287	0.333	Medium	
5	Nayagram	0.471	0.503	0.403	0.459	Very High	0.299	-0.098	0.308	0.170	Very Low	
6	Sankrail	0.411	0.480	0.414	0.435	Very High	0.377	0.091	0.396	0.288	Low	
7	Gopiballavpur-I	0.312	0.575	0.412	0.433	Very High	0.299	0.337	0.403	0.346	Medium	
8	Gopiballavpur-II	0.436	0.514	0.446	0.465	Very High	0.396	0.358	0.471	0.409	High	
9	Salbani	0.383	0.519	0.394	0.432	Very High	0.356	0.552	0.460	0.456	Very High	
10	Keshpur	0.333	0.481	0.285	0.366	Medium	0.463	0.438	0.470	0.457	Very High	
11	Garbeta-I	0.274	0.452	0.428	0.385	High	0.315	0.201	0.481	0.332	Medium	
12	Garbeta-II	0.404	0.449	0.479	0.444	Very High	0.389	-0.115	0.537	0.270	Very Low	
13	Garbeta-III	0.302	0.582	0.433	0.439	Very High	0.330	0.141	0.451	0.307	Low	
14	Mednapore	0.247	0.353	0.356	0.319	Low	0.228	0.177	0.406	0.270	Very Low	

15	Debra	0.399	0.454	0.478	0.444	Very High	0.393	0.255	0.571	0.406	High
16	Pingla	0.446	0.379	0.434	0.420	High	0.422	0.290	0.447	0.387	High
17	Keshiary	0.373	0.495	0.364	0.410	High	0.327	0.260	0.317	0.301	Low
18	Dantan-I	0.292	0.425	0.297	0.338	Medium	0.271	-0.051	0.385	0.202	Very Low
19	Dantan-II	0.346	0.324	0.310	0.326	Low	0.373	0.075	0.346	0.265	Very Low
20	Narayangarh	0.374	0.521	0.376	0.424	High	0.327	0.285	0.447	0.353	Medium
21	Mohanpur	0.368	0.264	0.343	0.325	Low	0.365	-0.155	0.377	0.196	Very Low
22	Sabang	0.496	0.399	0.491	0.462	Very High	0.515	0.221	0.554	0.430	High
23	Kharagpur-I	0.337	0.249	0.405	0.331	Medium	0.189	-0.306	0.435	0.106	Very Low
24	Kharagpur-II	0.414	0.283	0.370	0.356	Medium	0.342	0.101	0.371	0.271	Very Low
25	Chandrakona-I	0.542	0.448	0.415	0.469	Very High	0.414	0.676	0.471	0.520	Very High
26	Chandrakona-II	0.445	0.350	0.349	0.381	High	0.496	0.822	0.425	0.581	Very High
27	Ghatal	0.490	0.293	0.435	0.406	High	0.467	-0.116	0.517	0.290	Low
28	Daspur-I	0.476	0.334	0.453	0.421	High	0.466	0.047	0.565	0.359	Medium
29	Daspur-II	0.496	0.313	0.414	0.408	High	0.539	-0.172	0.544	0.303	Low
30	Tamluk	0.513	0.280	0.477	0.424	High	0.555	0.398	0.470	0.474	Very High
31	SahidMatangini	0.514	0.190	0.431	0.378	Medium	0.542	0.018	0.465	0.342	Medium
32	Panskura	0.463	0.232	0.309	0.335	Medium	0.443	0.416	0.458	0.439	Very High
33	Kolaghat	0.426	0.279	0.437	0.381	High	0.518	0.181	0.463	0.387	High
34	Moyna	0.458	0.248	0.325	0.344	Medium	0.493	0.175	0.348	0.339	Medium
35	Nandakumar	0.468	0.235	0.320	0.341	Medium	0.541	0.381	0.390	0.437	Very High
36	Chandipur	0.498	0.247	0.224	0.323	Low	0.553	0.305	0.345	0.401	High
37	Mahisadal	0.469	0.188	0.385	0.347	Medium	0.486	0.267	0.404	0.385	High
38	Nandigram-I	0.421	0.342	0.197	0.320	Low	0.464	0.471	0.244	0.393	High
39	Nandigram-II	0.558	0.355	0.292	0.402	High	0.621	0.329	0.297	0.415	High
40	Sutahata	0.592	0.357	0.415	0.455	Very High	0.661	0.593	0.405	0.553	Very High
41	Haldia	0.543	0.441	0.347	0.444	Very High	0.496	0.041	0.368	0.302	Low
42	Potashpur-I	0.499	0.187	0.392	0.359	Medium	0.538	-0.073	0.413	0.293	Low
43	Potashpur-II	0.402	0.251	0.306	0.320	Low	0.453	0.130	0.337	0.307	Low
44	Bhagwanpur-I	0.449	0.254	0.328	0.344	Medium	0.535	0.298	0.384	0.405	High
45	Egra-I	0.388	0.267	0.279	0.311	Low	0.458	-0.021	0.338	0.258	Very Low
46	Egra-II	0.403	0.382	0.327	0.371	Medium	0.481	0.093	0.346	0.307	Low
47	Khejuri-I	0.473	0.377	0.347	0.399	High	0.550	0.300	0.312	0.387	High
48	Khejuri-II	0.368	0.185	0.245	0.266	Very Low	0.495	0.394	0.241	0.377	Medium
49	Bhagwanpur-II	0.545	0.259	0.352	0.385	High	0.565	0.018	0.355	0.312	Low
50	Ramnagar-I	0.430	0.385	0.389	0.402	High	0.503	0.328	0.385	0.405	High
51	Ramnagar-II	0.442	0.371	0.320	0.378	Medium	0.452	0.342	0.384	0.393	High
52	Contai-I	0.574	0.310	0.427	0.437	Very High	0.506	0.154	0.390	0.350	Medium
53	Deshopran	0.445	0.306	0.299	0.350	Medium	0.512	0.257	0.312	0.360	Medium
54	Contai-III	0.489	0.414	0.352	0.418	High	0.484	0.151	0.368	0.334	Medium

Table 4: Blocks, percentage of Area and Population under different Levels of Development

Level of Development	Number of Blocks Included		Area (%)		Population (%)	
	2001	2011	2001	2011	2001	2011
Educational Facility						
Very low	4	5	9.23	11.87	6.75	7.92
Low	9	13	18.72	33.09	15.75	20.06
Moderate	21	9	39.21	15.09	34.37	15.03
High	14	19	19.44	24.72	26.94	34.72
Very high	6	8	5.54	7.17	7.59	13.08
Health Facility						
Very low	4	23	3.93	37.11	6.53	39.41
Low	14	12	18.84	25.48	28.03	22.75
Moderate	16	10	20.12	12.42	25.34	14.36
High	14	3	32.67	6.34	22.25	7.54
Very high	6	5	16.58	10.60	9.26	6.74
Infrastructural Facility						
Very low	4	2	4.65	2.27	6.21	3.15
Low	12	9	17.63	17.69	22.88	12.21
Moderate	16	17	29.25	23.60	24.09	26.72
High	17	13	28.69	25.82	27.99	22.52
Very high	5	13	11.92	22.56	10.23	26.21
Overall Development						
Very low	1	9	0.98	18.28	1.22	13.90
Low	7	11	9.63	18.75	10.60	17.02
Moderate	14	12	21.27	20.32	28.29	19.83
High	18	13	30.72	16.97	30.88	23.30
Very high	14	9	29.55	17.62	20.41	16.76

Inter-Relationship Among Different Dimensions of Development:

As balanced development needs flourishing of all the socioeconomic facilities together (Majumder, 2021; Ohlan, 2013), therefore, it is necessary to analyse that whether all the individual facilities are interrelated and correlated with the level of overall development or not. Therefore, an attempt has been taken to identify the Pearson Correlations Coefficient (See table 5) between individual factors and the overall level of development. The correlation matrix shows that health and infrastructure are positively correlated in respect to the overall development in the year 2001. The matrix also shows

that education and health are positively correlated with the overall development for the year 2011.

Table 5: Pearson Correlations Coefficient of selected dimensions (2001 and 2011)

2001	Education	Health	Infrastructure	Overall Development
Education	1			
Health	-0.36343	1		
Infrastructure	0.079914	0.33578	1	
Overall Development	0.307015	0.684543	0.743168	1
2011	Education	Health	Infrastructure	Overall Development
Education	1			
Health	0.193590988	1		
Infrastructure	-0.05789068	-0.11186	1	
Overall Development	0.520016089	0.890829	0.169759	1

CONCLUSIONS AND POLICY IMPLICATION

In this study all fifty-four blocks of undivided Medinipur district have been classified into five development classes according to educational index, health index, infrastructural index and overall Composite Development Index for two census years i.e. 2001 and 2011. The result shows wide disparities within different blocks concerning the availability of educational, health, infrastructure and overall development facilities for both the years. It also shows a clear east-west disparity throughout the region. As the eastern region is settled by a huge population and population density is very high, the availability of all the facilities is not sufficient in comparison to the western region, where population density is very sparse. In another side, as the blocks of the western part are mainly covered by large forested areas and a low population density, the availability of social amenities concerning the population is much better with respect to other areas. Other findings depicts that despite the nearness of urban centres, the development scores of some blocks are very low due to the huge population pressure of that area and also from the outside area due to a large amount of in-migration of the population. It is also found that all the blocks do not have all the facilities equitably. But as we know that all the dimensions of development are closely linked with overall development, and as development is a multi-faceted phenomenon, therefore improvement in every individual dimension should necessary for balanced development in the region. Area-specific policy-making strategy is also required to strengthen a specific region or block with the help of local governments and available resources.

Furthermore, progress in capacity building in the less developed regions has been required for the implementation of regional policy and balanced regional development.

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INCOME AND EXPENDITURE PATTERNS OF AGRICULTURAL LABOURERS IN BARBHAG BLOCK OF NALBARI DISTRICT

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INTRODUCTION

There is no doubt that the number of agricultural labourers and marginal farmers in India has been increasing continuously. The proportion of population below the poverty line highlights that during the period of planned development in India, the level of living of the bulk of agricultural labourers and marginal farmers has undergone very little improvement. Nearly 9.00 percent of the population of Assam lives in villages and 82.00 percent of them is dependent on agriculture. It, however, varies from district to district. Agriculture and allied results have been the primary occupation of the rural areas of Nalbari District. Cultivation continues to be the main stay of their livelihood. Rice is the dominant crop enterprise in the district. Dairy, poultry, goatary, sericulture, weaving and fishing are some of the subsidiary occupations of the habitants of the District. Still the economic conditions of the weaker sections (agricultural labourers and marginal farmers) are seemed to be poor. Economic development of the rural areas along with the development of agriculture in the district therefore, depends very much on the enhancement of the socio-economic conditions of the poor in the rural areas. This study is therefore, designed to explore the information on various aspects of the rural poor in Paschim Nalbari Block of Nalbari District.

OBJECTIVES

The Specific Objectives of the Study Are

- i) To study the demographic characteristics of the agricultural labourers.
- ii) To ascertain per household and per capita income of the agricultural labourers.
- iii) To compare source wise household income of the agricultural labourers.
- iv) To ascertain per household and per capita levels of the agricultural consumption labourers.
- v) To compare the consumption expenditure the agricultural labourers.

METHODOLOGY

The sample for the present study was selected using purposive and two stage random sampling technique. The selection of the District and Block was purposive, selection of villages was the first stage and selection of households was the second and the ultimate unit of the sampling for the present investigation. From the list of the villages 3 villages were selected at random. The names of the villages, were Dokoha, Nakheta & Ritekuchi.

From each of the selected villages a sample of 15 households was selected at random for the agricultural labourers. It generated total sample households of 45 for the study. The primary data in connection with the level of living of the agricultural labourers pertaining to the year 2012 were collected with the help of a specially designed and protested set of schedule through personal interview with the respondents. The secondary data were collected from Block Development Office, Directorate of Economic and Statistics Department, Deputy Commissioner's Office and from Census Report. The collected primary data were rationalized, processed and tabulated. To delineate the objectives simple tabular analysis with calculation of mean (average) and percentage was used. In connection with annual consumption expenditure an attempt was made to find out the propensity to consume for the agricultural labourers with the help of the following relationship:

Average Propensity to Consume = C/Y where

C = Average Consumption,

Y = Average Income.

CONCEPTS AND DEFINITIONS

Agricultural Labourers

A labourer who mostly hires out labour in the agricultural sector and whose major source of income was agricultural wages was taken as an agricultural labourer. The household which earned more than 50.00 percent of the total income of the family from agricultural wages was considered as an agricultural labourer household for the study.

Units of Analysis

The household was taken as a unit of analysis. A household consists of the members of family who partake of meals from the same kitchen. The average values for a household was calculated after pooling altogether all the households in the sample. Likewise, per capita values were worked out on the basis of the total number of members of an average family.

Income of Agricultural Labourers

Income consists of wages (in cash and in kind) of the members of a household working as casual or permanent workers in and outside agriculture. Income from other sources like crop, dairy, poultry, goatary, piggery, fishery, horticulture, weaving and forestry were added to the total income of the household. Of course, the costs associated with the production of each enterprise were deducted. However, the cost of the family labour was not included for these cases. Incomes received from salary, pension and borrowing/loan/ debt were also included in the current income of the household. Further, incomes from business, rickshaw pulling, thela pushing, handicrafts, tuition, contract etc. ere also included in the household income through the income head 'others'. The household income was estimated for one year.

Consumption Expenditure

The expenditure incurred on various items by the agricultural labourers was divided into two broad groups- non- durables and durables. Non-durable consumption items included food, fuel and lighting, intoxicants, miscellaneous (washing soap, detergent powder, hair oil, blade, cosmetics and tooth ste/powder), dresses, services, traveling and house rent. The wages received in kind by some of the family members were included in the consumption expenditure of the household. The commodities produced at home and received as donations or help (in the form of materials) from other individuals and materials collected through search from natural sources (free of cost) were also taken into consideration while calculating the household consumption expenditure.

RESULTS AND DISCUSSIONS

The various results of the research study are discussed objectively under the following heads. Demographic characteristics of the study Area of population according to age and sex for the agricultural labourers are presented in table 1 and discussed as below:

Table 1: Distribution of Population of the Agricultural Labourers According To Age and Sex

Age Group	Male	Female	Total
Below 15 yrs.	18.07(0.93)	16.77(0.87)	34.84(1.80)
15 to 60 yrs.	32.90(1.70)	30.97(1.60)	63.87(3.30)
Above 60 yrs.	0.65(0.04)	0.64(0.03)	1.29(0.07)
Total Family Members of the Household	51.61(2.67)	48.39(2.50)	100.00(5.17)

(Figures within parentheses indicate average number per family)

The percent distribution of population for the agricultural labourers under Barbhag Block envisaged that 34.84 percent of the total population belonged to the age group of below 15 years. In this group the percent of males as 18.07 and of females 16.77. In the age group between 15 and 60 years total percentage of population was 63.87 ; out of that 32.90 percent were males and 30.97 percent females. In the age group of above 60 years the proportion of population was 1.29 percent including 0.65 per cent males and 0.64 per cent females. On an average the percentages of males and females for the entire agricultural labourers of Barbhag Block was recorded at 51.61 and 48.39 respectively. The sex ratio (female: male) was 0.94: 1.00.

In Barbhag Block the average number of persons per family was 5.17 comprising 2.67 males and 2.50 females respectively.

Table- 2: Distribution of Population of the Agricultural Labourers According To Educational Standard.

Status	Primary	M.E.	H.S.L.C	P.U.	B/ Degree	M/ Degree	Tech.	Total Literate
Literate	24.52 (1.27)	24.52 (1.23)	23.87 (0.10)	1.93 (1.27)				74.84 (3.87)
Illiterate								25.16 (1.30)
Total Family Members of the Household								100.00 (5.71)

(Figures within parentheses indicate average number per family)

The percentage distribution of the agricultural labourer population according to educational standard and literacy indicated that 25.16 per cent of the agricultural labourers in Barbhag Block was illiterate and 74.84 per cent was found to be literate. Out of the total literate persons, 24.52 per cent attained primary level of education, 24.52 per cent M. E., 23.87 per cent H. S. L. C. level and 1.93 per cent higher secondary level of education. Nobody attained the target of either bachelor or master degree level of education in this block.

The distribution of population in individual numbers of the family showed that on an average 1.30 number of persons per household in the block found to be illiterate, 3.87 were accounted to be literate. Out of the total literates it was found that primary level of education was received by 1.27 number of family members, M.E. Level of education by 1.27, H.S.L.C. level of education by 1.23 and higher secondary level of education by 0.10 members per family. In Barbhag Block area, the maximum number of educated persons were in primary and M.E. level of education.

Level and Patterns of Income of the Agricultural Lavbours

The results of the analysis of average annual household income of the agricultural labourers generated from various sources are given in Table - 3. From the table it is seen that the total annual income per family was found to be Rs. 35, 409.28 and the per capita income was Rs. 6848.99 for the agricultural labourers. The shares of income generated from various sources of income ranged from Rs. 210.00 to Rs. 19,022.63. Among the various sources of income, hiring out labour in agriculture was the most important source of income. It derived Rs. 19,022.63 per household and Rs. 3,679.43 per capita as cash. In terms of kind payment this source generated Rs. 7,289.09 per household and Rs. 1,409.88 per capita. In percentage distribution, hiring out labour in agriculture contributed 74.30 percent (53.72 per cent as cash and 20.58 per cent as kind) of the total income of the household. The next important source of income was others' deriving Rs. 2,317.40 per household and Rs. 448.24 per capita. It covered 6.54 per cent income of the household. This was followed by horticulture with Rs. 1,441.73 per

household and Rs. 278.86 per capita. These amounts shared 4.07 percent of the total agricultural labourer family income, the next important source of income.

Table 3: Levels and Patterns of Income of Agricultural Labourers

Sl.No.	Source of Income	Per Household	Percent	Per Capita
1	Hiring out labour in Agriculture	19022.63	53.72	3679.43
	Cash	7289.09	20.58	1409.88
	Kind			
	Total	26311.72	74.30	4089.31
2	Crop.	1256.17	3.55	242.97
3	Dairy	742.50	2.10	143.62
4	Poultry	813.56	2.30	157.36
5	Goatary	419.36	1.39	95.04
6	Piggery			
7	Fishery			
8	Horticulture	1441.73	4.07	278.86
9	Sericulture			
10	Apiary			
11	Weaving	243.41	0.69	47.08
12	Forestry	317.63	0.90	61.44
13	Salary			
14	Pension	210.00	0.59	40.62
15	Borrowing/Loan/Debt.	1263.80	3.57	244.45
16	Others	2317.40	6.54	448.24
	Total	35409.28	100.00	6848.99

Was Borrowing/Loan/Debt with Rs. 1,263.80 per household and Rs. 244.45 per capita. This item contributed 3.57 per cent of the total income of the household. The lowest income was received from salary with Rs. 210.00 per household and Rs. 40.62 per capita. It contributed only 0.59 per cent to the total income of the household.

The above figures indicated that a very large amount of total household income of the agricultural labourer family came from hiring out labour in agriculture. On the other hand, the income derived from each of the remaining sources was negligible in comparison to that of hiring out labourer in agriculture.

Levels and Patterns of Consumption Expenditure of the Agricultural Labourers

The consumption expenditure in this investigation was divided into two broad groups 'non-durables' and 'durables'. The various items of non-durables were further divided into food, fuel and lighting, intoxicants, miscellaneous, dresses, services, traveling and

house rent. The results of the analysis of consumption expenditure are presented in Table 4.

Table 4: Levels and Patterns of Consumption Expenditure of the Agricultural Laborers

Sl	Items of Consumption	Per Household	Per Cent	Per Capita
A	Non-Durables			
1	Food			
(i)	Cereals	9436.42	25.20	1825.23
(ii)	Non-Cereals	13301.99	35.53	2572.92
	Total	22738.41	60.73	4398.15
2	Fuel and Lighting	2813.07	7.51	544.12
3	Intoxicants	1064.67	2.85	205.93
4	Miscellaneous	1191.33	3.18	230.43
5	Dresses	3030.60	8.09	586.19
6	Services	4738.59	12.65	916.56
7	Traveling	526.40	1.41	101.82
8	House rent			
B	Durables	1338.71	258.94	258.94
	Total	37441.78	7242.12	7242.12

From the table it is clear that the annual consumption expenditure of the agricultural laborers were Rs. 37441.78 per household and Rs. 7242.12 per capita. The expenditure incurred on various items ranged from Rs. 526.40 to Rs. 22738.41. Amongst the various items food was the single most item where the agricultural labourers spent 60.73 per cent (Rs. 22738.41 per household and Rs. 4398.15 per capita) of the total consumption expenditure. Out of the total expenditure on food 35.53 per cent was spend on non-cereal items and 25.20 per cent on cereal items. Per household expenditure on non-cereal items and cereal items were Rs. 13301.99 and Rs. 9436.42. On per capita basis these figures were Rs. 2572.92 and Rs. 1825.23 respectively. The second important item of consumption was 'services', which includes education, health care, entertainment (festivals and ceremonies) and Barbar/Dhobi covering 12.65 percent of the total expenditure was incurred. On services the per household and per capita expenditures were Rs. 4738.59 and Rs. 916.56 respectively. The next important item of consumption or the agricultural labourers was 'dresses'. On dresses 8.09 per cent of the total expenditure was household and incurred. The per capita consumption on this item was Rs. 3030.60 and Rs. 586.19. The least important item of consumption was found to be traveling, spending only 1.41 per cent of the total expenditure. This item represented Rs. 526.40 per household and Rs. 101.82 per capita.

Form the above discussion it is clear that the average annual consumption expenditure of the agricultural labourers was higher than that of the average annual income. The

average annual consumption was Rs. 37441.78 and the average annual income was Rs. 35409.28. Hence, a deficit of Rs. 2032.50 was found. When the average propensity to consume was calculated it was found 1.06.

CONCLUSION

The demographic structure of the study area was characterized by the maximum percentage of the population in the age group of 15 to 60 years indicating higher potentiality of labour force in agriculture. Besides poor socio-economic amenities the socio-religious taboos contributed a lot in aggravating various demographic attributes in the study area.

By virtue of their being agricultural labourers the main sources of their income were agricultural wages though they boost their income by resorting to subsidiary occupations like dairy, poultry, goatary, fishery etc, the income from these sources was very low in comparison to that of the main sources of income. They spent the major part of their income on food items covering more than 60.00 per cent of the total consumption expenditure. Amongst food items rice was the most dominating cost item under the agricultural labourer family. The other important cost items were fuel and lighting, dresses and services. The average propensity to consume was found to be more than unity in the studied block.

SUGGESTIONS

The following are the some of policy implications (suggestions) derived from the investigation.

- 1) Rigorous steps for proper implementation of the existing rural development schemes would help in raising income levels of the rural areas.
- 2) Measures to stop further fragmentation of land holdings may be evolved to check transformation of the marginal farmers into the agricultural labourers.
- 3) Due importance may be given in creating and developing environment for small scale and agro-based industries to encourage horticultural and agro-forestry product in homestead areas of the agricultural labourers.
- 4) Infrastructural development for better marketing would not only increase the income of rural people but also help in more employment.
- 5) Policies for imparting creative education and training for rural people would ensure economic development to a large extent.

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POVERTY AND HUMAN DEVELOPMENT – AN ANALYTICAL STUDY IN ASSAM

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1. INTRODUCTION

“No society can surely be flourishing and happy of which by far the greater part of the numbers are poor and miserable.”

- Adam Smith, 1776

Poverty is a social phenomenon in which a section of the society is unable to fulfill even its basic necessities of life. When a substantial segment of a society is deprived of the minimum level of living and continues at a bare subsistence level, that society is said to be plagued with mass poverty. In other words, poverty is the inability to get the minimum consumption requirements for health, life and efficiency where minimum consumption comprises consumption of food, clothing, housing, education etc. If the people unable to fulfill these requirements, it leads to great distress and suffering and helps to impose adverse effect on human development. In fact, poverty in the modern day is a multidimensional concept and highly linked with human development. Human development, is most popularly related to improvement of quality of people’s lives by creating suitable environment for them to engage in a wider range of activities, to become healthy, to be knowledgeable and to be able to participate in community life where A. Sen (1985) calls these as ‘basic functionings’. For a region as well as for the country to achieve sustainable growth, human development is extremely important as it aims at enlarging people’s choices and enhances their power to participate actively in developmental process. For measurement human development, United Nations Development Programme (UNDP) has constructed human development index since 1990 on the basis of knowledge and ability to learn, a long and healthy life and a decent standard of living.

According to Human Development Report 2021, India with an index value of 0.633 is placed 132nd among 191 countries and is categorized at medium level. Assam, as a state of North East India, has index value 0.597 in 2021 as per Indian Human Development Report 2021, where Assam occupies 30th place along with Odisha followed by Madhya Pradesh 0.596. It clearly signifies that there exists a huge problem of poverty in Assam where the people fails to satisfy the minimum requirements of 2400 calories in rural areas and 2100 calories in urban areas per day. It should be noted that these minimum bars of consumption had determined by the Planning Commission in India.

Among all the states of North- East, Assam constitutes 3.11 crore population out of which 2.67 crore people are living in rural areas and in remaining 0.43 crore are living in urban areas as per 2011 census. But the estimated population in Assam has increased to 3.50 crore in 2021 as per Economic Survey, Assam-2021-2021. According to Poverty Head Count Ratio conducted by Planning Commission by using Tendulkar Methodology in 2004-05 in Assam 36.4 percent of rural people and 21.8 percent of urban people are suffering the problem of poverty which retards the pace of smooth functioning of human development in Assam. But unfortunately the Poverty Head Count Ratio in 2009-10 showed that the people living below poverty people has increased to 37.9 percent out of which 39.9 percent in rural and 26.1 percent in urban areas. It become a positive sign for the state that multi-dimensional poverty has come down to 32.67 percent in 2021 which implying that almost one-fourth of the total population are facing deprivation from adequate health and nutrition, education and standard of living. The global Human Development Reports brought out by UNDP since 1990 has focused on various dimension of development viz education, health and income. As per Indian Human Development Report, the value of Assam is 0.597 as per Human Development Index conducted in 2020-2021 occupying 30th rank among all the states in India which was 0.557 in 2014-15 and 0.386 during 2001-02. The report reveals that Assam occupies 16th rank during 2007-08 which was 17th during 1999-2000. Without improving the value of HDI in Assam economic development is difficult to achieve. For improving the rank of HDI in Assam, it is very much essential to reduce the rate of growth of population, increase literacy rate, increase employment opportunities, and ensuring better health.

2. OBJECTIVES

The major objectives of this paper are

- To study the present status of literacy rate.
- To study the organized and unorganized sectoral status of creating employment opportunities.
- To study whether any relation prevail between per capita income, poverty and human development in the state.
- To identify the major constraints of human development vis-à-vis poverty.

3. METHODOLOGY

The research methodology used in this paper for studying objectives is purely analytical and descriptive in nature. It is an attempt to study the objectives of this paper on the basis of secondary sources of data which include relevant magazines, journals, newspaper, article of research scholars, etc and try to draw the conclusion.

4. RESULTS AND ANALYSIS

There are four categories of results that have found in this paper for achieving the objectives which are discussed as follows-

4.1 Population Growth and Human Development

Human development and population both are inversely related to one another. It should be pointed out that human development is possible for the state when the rate of growth of population comes down. For analyzing the population growth table 1 is prepared since 1991.

Table 1: Trend in Population of Assam Since 1991

Year	Population (in lakh)	Birth Rate	Percentage Decadal Variation
1991	224	30.9	24.2
2001	266	26.8	18.9
2010	310	23.2	---
2011	312	22.8	16.9
2019	343	21.0	---
2021	350	---	12.2

Source: i) Census of India 2021

ii) Economy Survey, Assam

Table 1 reveals that during 1991 the total population in Assam was 224 lakh which has increased to 312 lakh and 350 lakh in 2011 and 2021 respectively. Though total population increases in Assam since 1991, but the percentage of decadal variation has come down significantly from 24.2 percent in 1991 to 18.9 percent in 2001 and then to 16.9 percent in 2011 and 12.2 percent in 2021. From the viewpoint of birth rate, it is observed that birth rate reduces significantly from 30.9 percent in 1991 and then to 21 percent in 2019. Under such a circumstance, conflict arises in the state over the growth rate of population inspite of reduce in birth rate. In regard, it can be said that large scale migration of population into Assam from the neighboring countries cause high rate of increase in the size of population. Increasing size of population has raised the demand for food, due to lack of simultaneous increase in the area under cultivation and the production of agricultural items, food crisis has arised. As a result of it, poverty affected people persist that fails of achieve smooth path of human development.

4.2: Present Status of Literacy in Assam:

Though education is a human right where no one should be denied it, but practically this argument comes true only when all people in Assam will literate. Without increasing literacy rate human developmental path can't be possible and hence rightly educational attainment is regarded as one of the important indicator of human development. The following table 2 shows the literacy rate in Assam vis-avis at all India level.

Table 2: Literacy Rate in Assam and India since 1991

Year	1990-91	2000-01	2010-11	2020-21
Assam (in percent)	52.89	63.25	73.18	85.90
India (in percent)	52.21	64.84	74.04	77.70

Source: Census of India, 2021

In table 2, it is observed that since 1990-91, literacy rate in Assam has been improving. During 1990-91, literacy rate was 52.89 percent in Assam which was 52.21 percent at all India level. But the literacy rate in Assam has increased to 63.25 percent in 2000-01 and then to 85.9 percent in 2020-21. Though literacy rate has increased significantly, it was remained below the all India level till 2010-11 but has exceeded all India level after 2010-11 .

In Assam as an indicator of human development, the Gross Enrolment Ratio increases as observed from the estimates of Sarva Siksha Abhijan. The Gross Enrolment Ratio implies the number of students enrolled at different levels of education. It is the percentage of population of different age groups that are engaged in educational pursuit. It is very important to note that higher the Gross Enrolment Ratio, higher will be the quality of life and hence it will be the sincere efforts of every economy like Assam to increase general enrolment ratio as far as possible. Table 3 shows the Gross Enrolment Ratio (GER) with Net Enrolment Ratio (NER) along with dropout ratio.

Table 3: Status of GER, NER and Dropout Ratio (In percentage)

Head	2003-04	2008-09	2009-10	2018-19
GER Primary	85	103	109	115.7
GER Upper Primary	60	93	99	94.4
NER Primary	73	94	97	---
NER Upper Primary	42	88	82	---
Dropout Primary	10	8.77	5.74	15.4
Dropout Upper Primary	---	15.54	14.74	10.5

Source: Economic Survey Assam

<https://m.rbi.org.in>

The table 3 reveals that the GER of primary school has been increased from 85 percent in 2003-04 to 109 percent in 2009-10 and achieved at 115.7 percent in 2018-19. On the other hand, the NER of primary level has also been increased from 73 percent in 2003-04 to 97 percent in 2009-10 and the same will be expected to increase 100 percent in 2015. Though GER upper primary school has been increasing from 60 percent in 2003-04 to 94.4 percent in 2018-19 though it was become high in 2009-10, but NER upper

primary level reduces from 88 percent in 2008-09 to 82 percent in 2009-10. Again, the average dropout ratio has seen to decrease gradually. It is only because of the fact that the state government has gradually been increasing the allocation of budget in respect of Elementary Education so as to fulfill the objective of universalisation of elementary education for Assam.

4.3: Employment Generation in Assam

While for talking about employment generation of Assam in the labour force or in the labour market queries arise in mind such as how many people are willing to work and how many are actually working. The Labour Force Participation Rate (LFPR) is the media through which the participation of the population in the work is measured and is defined as the ratio of the number of persons in the labour force to the total population. For improving the LFPR, information about the nature of their work is very important. On the basis of terms and conditions of work, the work force can be categorized into organized and unorganized workers. The workers in organized sector have job securities which may involve in the public as well as private sector. On the other hand, unorganized sector is that unincorporated private enterprises owned by individual or households engaged in the sale and production of goods and services operated on a proprietary or partnership basis with less than ten workers. This definition has provided by the National Commission for Enterprises in the Unorganized Sector (NCEUS, 2009). The number of employed persons in the organized and unorganized sector can be shown in the flowing tables.

Table 4: Employment Status of Organised Sector (In thousands)

Year	Public Sector	Private Sector	Total
2004	525.1	572.0	1097.1
2005	524.5	605.2	1129.7
2006	519.7	599.7	1119.4
2007	527.0	640.5	1167.5
2008	527.3	554.6	1081.9
2009	531.7	571.7	1103.4
2010	531.1	583.0	1114.1
2014	515.2	590.8	1106
2016	583	966.4	1549.4
2018	489.9	619.7	1109.7
2019	479.2	628.9	1108.1
2020	478.7	626.7	1105.4

Source: Economic Survey Assam, 2011-12, 2021-2022

Table 4 reveals that public sector's employment has decreased from 525.1 thousand in 2004 to 478.7 in 2020. Correspondingly, generation of employment in private sector has

shown a fluctuating trend. In 2004, private sector employment was 572 thousand which has increased to 966.4 thousand in 2016 and then has decreased to 626.7 thousand in 2020. It also shows that the employment share in organised sector was going down in 2020. The main reason for this inverse affect may be due to the prevailing Covid-19 pandemic situation in the state and the rest of the country.

The result of labour force participation rate report 2019-2020 reveals that the labour force participation rate in respect of the age-group 15 years and above according to usual status approach in Assam is 47 percent in rural areas, 46.3 percent in urban areas and 46.9 percent in both rural and urban areas against the all India level of 55.5 percent, 49.3 percent and 53.5 percent respectively.

4.4 Per Capita Income and Human Development

Per capita income is identified another important index of human development as it determines the idea of standard of living of the people. The per capita income is an alternative analysis of income in connection with the size of population which provides a rough idea about the average income as well as standard of living of the people in the state. Since the beginning of planning era, the per capita income of Assam is trailing behind the per capita income of India. The following table 5 is presented for showing the per capita income in Assam vis-à-vis India.

Table-5: Net per Capita Income (NPCI) at Current Prices since 2005-06

Year	Assam (in `)	India (in `)	Growth rate of NPCI in Assam (In percent)
2005-06	18396	26025	9.6
2006-07	19737	28083	7.3
2007-08	21290	30354	7.9
2008-09	24099	31801	13.2
2009-10	27964	33731	14.0
2010-11	30569	35917	11.3
2011-12	33633	63462	10.0
2014-15	52895	86687	---
2017-18	75151	115224	---
2018-19	81034	125883	---
2021-22	105454	150326	---

Source: Economic Survey, Assam, 2011-12, 2021-2022

It is evident from the table that since 2005-06 the per capita income of Assam at current prices has been increasing over the years. In 2005-06, it was Rs.18396 which has stood at Rs.105454 in 2021-22. But unfortunately, the per capita income of Assam is lagging behind to all India level. Though in Assam, per capita income increases, there exists

poverty problem which has stood at 31.98 percent as per poverty Headcount Ratio conducted by Planning Commission through using Tendulkar Methodology. Therefore, it clearly signifies that in Assam there prevails huge inequal distribution of income and wealth among different sections of people in the society.

5. Responsible Factors

The above analysis shows that birth rate reduces, literacy rate increases, employment opportunities, per capita income all are increased either at a higher or lower rate, but the level of poverty has not come down significantly because of which all round human development is not achieved. Some factors are responsible for all of these, out of which some constraints are mention below as –

- Lower agricultural productivity due to subdivided and fragmented holdings, lack of capital, use of traditional methods of cultivation, etc.
- Existence of under employment and disguised unemployment of human resources results poor farm sector production which can reduce the living standard of rural people.
- Continuous and steep price rise leads failure for minimum consumption needs of people.
- Laws of inheritance, caste system, traditions and customs are also putting hindrances in the way of faster human development.
- Absence of wage law in unorganized sector. In Assam, the wages for everyone is not equal irrespective of their gender.
- Large scale immigration of population from the neighbouring countries like Bangladesh, Pakistan, Nepal etc.
- The problem of huge corruption from the grassroot level to the central level is working as another important constraint for human development in Assam. It even also leads to inequal distribution of income and wealth among different sectors of people.
- Because of existence of inequal distribution of educational resources, most of the people in Assam are uneducated which also retards the smooth path of development.

6. SUGGESTIONS

Pf. Jawaharlal Nehru has correctly observed, “In a poor country there is only poverty to redistribute.” Glaring poverty of the society is neither desirable nor tolerable which must be controlled. Therefore, for ensuring better human development in Assam the following measures are mentioned.

- Proper attention should pay for increase in agricultural production and productivity by implementing higher yielding variety of seeds, provisioning better irrigation facilities, ensuring adequate implications of fertilizers, etc.
- It is much essential to check the flow of large scale immigration of population from our neighbouring countries and states.
- The poor should be given special facilities to stipend, free books and contingency allowance, etc. for providing education facilities to all.
- The government should also ensure the supply of minimum needs to the poor sections of society through effective public procurement and distribution system.
- Steps should be taken for encouraging small scale and cottage industries to create more employment opportunities in the rural areas.
- The existing problem of red tapism should be minimized.
- Effective and active cooperation should also be provided among citizens and political leaders.
- Some other measures should also be adopted which includes determination of proper wage law in unorganized sector, control of excessive rise in prices, improvement of workforce participation of women, adoption of labour intensive techniques of production at large, etc.

7. CONCLUSION

The paper shows the status of Assam with respect to poverty and human development on the basis of population growth, literacy rate, employment generation and per capita income during the period 1991 to 2011. It is observed in above analysis that though literacy rate, generation of employment, per capita income improves significantly along with reduce in birth rate, the concept of human development is not clear as poverty still persists. This is very useful for the policymakers to determine the budget allocations for all heads of human development and that will help to achieve long term poverty alleviation in Assam. Amartya Sen advocates a broader approach that requires evaluating people's lives in terms of capability to achieve different functioning which improves the path of human development. Capability in this context, refers to the set of real opportunities and actual choices available to a person in leading a life. In this approach, poverty is seen not merely it terms of an impoverished life of low income and scarce resources but also as capability deprivation to choose other types of living. The focus therefore is different kinds of unfreedoms that various aspects of economic poverty impose on the person. If such an approach is well managed and effectively utilized in Assam then human development must ensure by eradicating the extent of poverty.

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FLOOD DEVASTATION ON PADDY CULTIVATION: SPATIAL EVIDENCE FROM NORTH BANK PLAIN ZONE OF ASSAM, INDIA

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1. INTRODUCTION

One of the various forms of exogenous risk in Indian agriculture is the threat of flood which damages substantial amount of crop annually. Being a recurrent phenomenon in some states of India, flood has severe impact on agriculture for its vulnerability and exposure to the calamity. As per the report of National Disaster Management Authority (2012) annually on an average 15.3 per cent (48.81 million hectares) area of the India is affected by flood, damaging worth of INR 5431 crore during 1953 to 2016 (GoI, 2018). Generally, minimum water and sunshine needs being critical for photosynthesis and plant growth, however excessive flow of water may be threat to plant and agriculture. Proper channelisation of excessive rain water during monsoon is important in the light of minimisation of flood threat in flood plains as most of the agrarian states of India are basin of rivers and their tributaries. With the increasing demand for food by expanding Indian population, it has become pertinent to raise agricultural output where the contribution of paddy as staple crop is essential. Though farm mechanization and improvement in agricultural infrastructure post green revolution period has helped in attaining higher level of yield, but agricultural threat from flood and dependency on rainfall are still critical some of the states of India. Knowledge about does flood affects production of cereal crop differently in rainfed and irrigated agriculture can help the farmers in appropriate selection of crops in specific agrarian setup. While understanding the factors determining flood may help the policy makers in formulation of policy for creation of basic infrastructure for flood control.

Amongst various crops, paddy is the dominating crop in most of the states, in the states like Arunachal Pradesh, Assam, Bihar, Manipur, Odisha, Tripura and West Bengal sharing more than 40 percent of gross cropped area during 1990-91 to 2016-17 in respective state's (Hussain and Guha, 2021). Flood being root of misery for farmers in the form of crop damage and food insecurity (Arora and Birwal, 2017), Bihar, Assam, West Bengal, Uttar Pradesh, Andhra Pradesh, Karnataka and Odisha are listed as highly flood affected states of the country (GoI, 2018). With agriculture being an important source of employment and food security in the national economy, external threat of flood causes exogenous threat on cultivation thereby affecting the livelihood of the farmers.

The threat of flood on agriculture has been the target of investigation in the works of several scholars notably Hossain (1990); Paul and Rasid (1993); Mandal and Bezbaruah (2013); Goyari (2005). Younus (2014) found that crop production and food availability depend on frequency and severity of flood in Bangladesh. In another study Huang et al. (2015) remarked severe flooding decreases agricultural production, specifically the rice output (Banerjee 2010). However, Montgomery (1985) mentioned rice yields were often higher in high flood years as heavy rainfall and proper utilization of inputs raised yields and ultimately rice production in flood free zone that could compensate the crop loss in flood prone zone in Bangladesh. Farmers' strategies to deal with the flood threat in Indian states being investigated by Goyari (2005); Mandal (2010); Emerick et al. (2016) and Mishra (2001) while Werritty (2006) in UK.

Being a highly flood prone district of Assam, the farmers in Dhemaji district has to face recurrent loss in terms of crop loss or land damage on a regular scale every year. The farming communities of the district realms on uncertainty and threat from flood every crop calendar. However, the intensity and level of damage varies with change of location as one of the reasons for flood being over flown water from river. Thus, agricultural activities at the proximity of river basin makes the farmer more vulnerable relative to that of those located at distance. Studies on flood on agriculture spread over various dimension and issues available by now. Narrowing down the focus to Assam, studies on flood and agriculture mostly covered the coping strategies and the farm level with few attempts on failure of irrigation and government policy to deal with the recurrent natural calamity. However, study towards spatial dimension of flood threat on paddy production is conspicuous by its absence. Thus, understanding the spatial dimension of flood threat in agriculture is imperative so far as the agricultural crop damage and income, livelihood security of farmers. Present study has been carried for understanding flood threat on paddy cultivation in Chamarajan and Jiyadhhal blocks of Dhemaji district in Assam. The primary objective of the study is to investigate the spatial dimension of flood on paddy production in Dhemaji district and to understand how the use of agricultural inputs influences production of paddy in the study area. The rest of paper broadly divided into four sections. The study area, overview of data summary and methodology will be covered in section 2 of the paper, while the results and discussion will be compiled in section 3, the conclusion and possible policy implication will be summarised in the final section of the paper.

2. Study Area, Data and Methodology

Assam is one of the north-eastern states of India, located in the south of the eastern Himalayas along the Brahmaputra and Barak River valleys, a land of river. The Brahmaputra and the Barak and their tributaries flow over almost all the districts of the state. With the start of the wet season in May-June, starts hasty rainfall in Assam and continued for around three months. Because of excess rainfall particularly in the flood hells of the Himalayan River in Assam, cannot carry away all the water, submerges the

low-lying area of the valley (Goyari, 2014). As assessed by the Rastriya Barh Ayog (RBA), the flood prone area of the state is 31.05 lakh hectares. After independence, Assam faced major floods in 1954, 1962, 1972, 1977, 1984, 1988, 1998, 2002, 2004 and 2012 (Government of Assam, 2022).

Dhemaji district is an administrative district of Assam, India. The district occupies an area of 3237 sq.km. According to 2011 census, Dhemaji has a population of 686,133. The male and female population is 351,249 and 334,884 respectively. As compared to population as per 2001 census, the change in population was 19.97 per cent. According to 2011 census, the literacy rate 84.02 per cent of which 88.42 per cent are males and 79.31 per cent are females. The district is very frequently prone to flood. Jiadhal river is the main cause of flood in Dhemaji district. Flood in the Jiadhal basin is characterised by their extremely large magnitude, high frequency and extensive devastation. Flood causes death of human, animals, and damage to agricultural land, economic losses which include damage of crops, houses and public utilities. Flood brings variety of problem for the people of the district and farmers in particular. Regular occurrence of flood brings challenges for farming community in the district to face loss of crop and other productive assets.

Agriculture is the indispensable sustenance for livelihood of more 85 per cent of the people in Dhemaji district. Paddy is the major crop occupies more than 55 per cent of gross cropped area. Dhemaji is under Northern Brahmaputra valley zone of Assam. Agriculture and its allied activities play an important role in the socio-economic development of Dhemaji district. About 92.96 per cent of the total population of the district is inhabited in the rural areas. The agriculture and allied sector in the district merely rained. But the natural calamities (both draught and flood) are only the hurdles for agriculture activities in spite of hard labour and encouraging engagement of youth class in this sector. The natural calamities such as flood, draught spell, unseasonal raining etc. are reason for gradual distraction towards field activity. Despite of these weakness and threat are some strength and opportunities in the district.

The study is based on primary data collected from Dhemaji district of Assam. For this study two Community Development (CD) Blocks of the Dhemaji district were selected conveniently viz- Chamarajan block and Jiyadhal (Panitola) Tinigharia block. The data are collected production of paddy, area under cultivation, flood occurrence, flood damage, application of fertiliser, usage of labour and distance of farm household from river apart from other household and farm characteristics. The data was collected with a structured interview schedule from the farm household, finalised through a pilot survey. Present study has been carried by selecting 24 farm household with 12 farm household from each CD block of the study area. The household survey was carried during January 2022. The reference period for flood in the present study is 2021.

The study used descriptive statistics for analysis of data. The coefficient of correlation between production and Land, Labour, Fertiliser and Distance of River in both the location was estimated using the formula:

$$r = \frac{\Sigma xy}{\sqrt{\Sigma x^2 \Sigma y^2}}$$

Where, r is the coefficient of correlation, x and y are the variables.

To find the area wise variation in the havoc of flood hazardousness, the coefficient of variation (CV) was estimated using:

$$CV = \frac{\sigma}{\bar{x}}$$

Where, σ stands for standard deviation and \bar{x} stands for mean value.

3. RESULTS AND DISCUSSION

The descriptive statistics shows an overall picture of the study area empirically. Therefore, the descriptive statistics of the area is exemplified in Table 1 to describe the profile of the sampled households.

Table 1: Summary Statistics

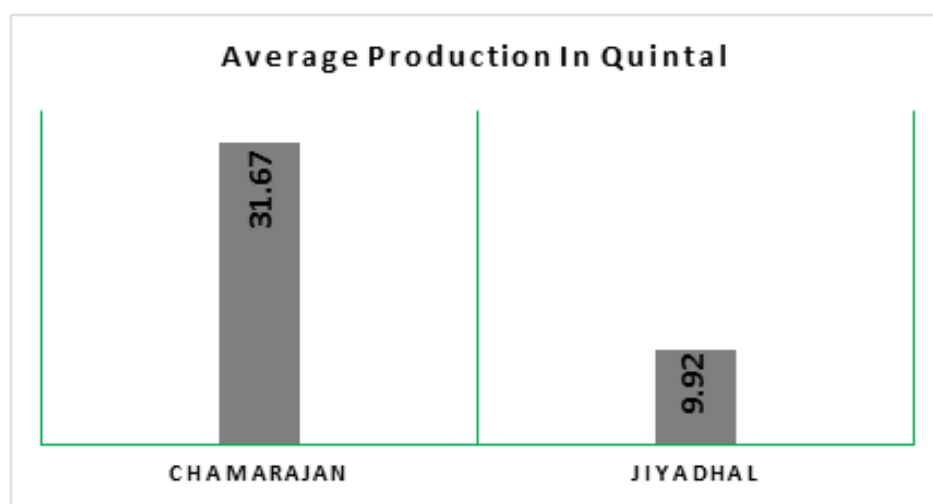
Variable	Unit	Mean	SD	Max	Min
Age	Years	43	8.53	65	32
Number of Family Member	Number	5	1.34	9	3
Area Under Cultivation	Bigha	4.96	2.48	12	2
Area Under Paddy Cultivation	Bigha	3.67	1.13	6	2
Production Per Bigha	Quintal	5.54	3.24	12	2
Total Production	Quintal	20.79	11.88	36	6
Year of Schooling of Household Head	Years	10.13	1.73	12	5
Area Under Paddy (Bigha)	Bigha	3.67	1.13	6	2
Area Affected by Flood (Bigha)	Bigha	4.96	2.48	12	2
Quantity Damaged During Flood	Bigha	2.67	1.09	5	1
Cost Per Bigha	INR	3750	896.85	5000	2000

Source: Authors estimates based on field Survey, 2022

The mean age of the respondent of the household is 43 years and average family size is 5 members with maximum 9 and minimum 3 members. The average area under cultivation is 4.96 bigha with 12 bigha area as the highest cultivated land and 2 bigha as the lowest cultivated land. The maximum area under paddy cultivation 6 bigha and minimum paddy cultivation are under 2 bigha and with an average of 3.67 bigha. Production per quintal maximum 12 and minimum 2 quintal and average of production was 5.54 quintal (Table 1).

To identify the educational profile, the average year of schooling of household head were seen to be 10 with a maximum of 12 and minimum 5. The average land holding under paddy of the sampled households was 3.67 bigha with a variation of maximum 6 and minimum 2 bigha. The average area affected by frequent flood was 4.96 bigha with a range between maximum 12 and minimum 2 bigha. The mean quantity damaged during flood during study period was 2.67 quintal with maximum 5 quintal and minimum 1 quintal (Table 1).

Figure 1: Comparison between Chamarajan and Jiyadhhal on Paddy Production



Source: Authors estimates based on field Survey, 2022

From the Figure 1 it has been seen that the average production in Chamarajan is more than that of Jiyadhhal. The average production in Chamarajan is 37.67 quintal and Jiyadhhal is 9.92 quintal. The farmers in Chamarajan have more experienced in cultivation of paddy but in Jiyadhhal the farmers may be less experienced. Excessive used of fertilizers, pest attack, unscientific used of fertilizers, chemicals etc. leads to less production. During the rainy season the river water raised up leading to flood which almost washed away all the paddy field leading to the huge loss of the people of both the villages (Chamarajan and Jiyadhhal).

Spatial Variation in Flood Hazardousness

The variation in paddy production of two blocks, Chamarajan and Jiyadhhal in Dhemaji District is reported in Table 2. The average production of paddy in Chamarajan block was 31.67 tonnes with a deviation of 4.57. The average application of fertilizer was 10.03 kg per bigha with standard deviation 7.44. It can be seen from the Table 2 that the average area affected by flood was 5.16 hectare in sampled household with a variation of 27.90. That signifies a high fluctuation among low land and high land sampled households in case of flood vulnerability.

Table 2: The Flood Hazardousness in Chamarajan and Jiadhhal Block

Variable	Chamarajan			Jiadhhal	
	UNIT	MEAN (SD)	CV	Mean (SD)	CV
Total production	Tonnes	31.67 (4.57)	14.43	9.91 (3.98)	40.16
Fertilizer used	Kg/Bigha	10.03 (7.44)	74.17	4.08 (1.97)	40.28
Area affected by flood	Bigha	5.16 (1.44)	27.90	6.75 (2)	30.44
Quantity damaged during flood	Tonnes	2.83 (1.11)	39.22	3.5 (1.08)	30.86

Source: Authors estimates based on field Survey, 2022

The average total production in Jiadhhal was 9.91 with deviation 3.98. The average fertilizer used in the cultivation of paddy in Jiadhhal 4.08 with standard deviation 1.97 (Table 2). From both the Figure 1 and Table2 we can conclude that the total production of paddy in Chamarajan village is more consistent than that of Jiadhhal because the coefficient of variation in Jiadhhal is higher than the coefficient of variation in Chamarajan village. The flood devastation is comparatively lower in Chamarajan than in Jiadhhal block.

Table 3: Correlation of Paddy Production and other Factors in Chamarajan

Variables	Production	Distance to River
Production	1	
Distance to River	0.091	1
	Production	Land
Production	1	
Land	0.597	1
	Production	Labour
Production	1	
Labour	0.269	1
	Production	Fertilizer
Production	1	
Fertilizer	0.005	1
	Production	Flood Occurrence
Production	1	
Flood Occurrence	-0.32	1

Source: Authors estimates based on field Survey, 2022

From Table 3, it can be observed that there is a positive relationship between production and distances to river in the context of Chamarajan, indicates that as the distance of the river increase the production also increases. The production increases in the cultivation nearer the river. Similarly, the production and labour are positively correlated. It has

been found that the fertilizer is positively related with production. Occurrence of Flood seen to be negatively correlated with production, suggests that as number of flood occurrence increases, crop damage also increases and production decreases.

From the results of correlation, it has been seen that there is a positive relationship between production and distance to river in the context of Jiadhal, signifies that production increases as distance from river increases (Table 4). The finding suggests that production increases as the land holding increases. While, flood occurrence found to be negatively correlated with production, suggests that as number of flood occurrence increases, crop damage also increases and production decreases.

Table 4: Correlation of Paddy Production and other Factors in Jiadhal

Variables	Production	Distance to River
Production	1	
Distance to River	0.378	1
	Production	Land Holding
Production	1	
Land Holding	0.224	1
	Production	Labour
Production	1	
Labour	0.155	1
	Production	Fertilizer
Production	1	
Fertilizer	0.047	1
	Production	Flood Occurrence
Production	1	
Flood Occurrence	-0.68	1

Source: Authors estimates based on field Survey, 2022

The key findings can summarily be enlisted as, the results of the coefficient of correlation reflects that there is a positive relationship between production and distances to river in the context of Chamarajan, and Jiadhal block. Thus, longest the distance from river was the level of production across the farm household of the study area. It has been found that the use of labour and fertilizer were positively related with production in both the sampled location of the study area. Interestingly, the occurrence of flood has negative correlation with production of paddy at the farm level across the two locations of the study area with the impact being found to be higher for the farm household located at the proximity that of Jiadhal block of Dhemaji district of Assam. Such result reflects that farmers who were located closer to river suffered grater loss of paddy crop than that of those who were away from the riverside.

CONCLUSION

The study has attempted the spatial impact of flood on paddy production in Dhemaji district. The findings of the study confirm that the flood threat on paddy production at firm level vary with the location with the threat seen to be higher in location at the proximity of river. Since Dhemaji district is prone to flood, which causes huge damage of crop every year. Implementation of rural development program by creation of rural agricultural infrastructure is the need of the hour. Since, flood being a regular event in Assam, the district administration beside the state government should take steps for creation of proper irrigation infrastructure and most importantly measures towards rising bed of river. In addition, farmers may be encouraged to improve their warehousing and storage facility through financial assistance.

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SOCIAL SECTOR IN INDIA

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INTRODUCTION

The social sector in India refers to the various areas of social development, such as education, healthcare, social welfare, and other services that are provided by the government, non-governmental organisations (NGOs), and other stakeholders. These services are intended to promote social development, reduce poverty, and address inequalities in the country. The social sector is important for India as it is home to a vast population that is diverse in terms of income, caste, religion, and region. The sector is essential for promoting inclusive growth and human development, which are key components of sustainable development. Access to quality education, healthcare, and social welfare services can significantly improve the quality of life of people, particularly those from marginalised communities. However, the social sector in India faces significant challenges, such as inadequate funding, poor service quality, and unequal distribution of services. Addressing these challenges requires concerted efforts from various stakeholders, including the government, civil society organisations, and the private sector. By working together, these stakeholders can promote sustainable social development, reduce poverty, and address inequalities in India.

Challenges Facing the Social Sector in India: The social sector in India faces several challenges that hinder its ability to promote social development, reduce poverty, and address inequalities. In this section, we will discuss some of the major challenges facing the social sector in India.

1. Limited resources: One of the biggest challenges facing the social sector in India is the limited resources available for social development programs. India is a developing country with a large population, and the demand for social services is high. However, the government's budget for social sectors is often inadequate to meet the growing demand. This leads to a shortage of resources for social development programs, which limits their impact.
2. Poor quality of services: The quality of social services in India is another major challenge. Many social development programs suffer from poor service quality, which can lead to low utilization rates and dissatisfaction among beneficiaries. For example, many government-run schools suffer from a lack of qualified teachers, inadequate infrastructure, and poor teaching materials. Similarly, public healthcare facilities often lack basic equipment and suffer from a shortage of medical personnel, resulting in poor service quality.
3. Unequal distribution of services: The distribution of social services in India is often unequal, with marginalized communities having limited access to basic services such as healthcare and education. This is particularly true for communities residing in rural areas or in economically disadvantaged regions. These communities often lack access to social

services, leading to significant disparities in health outcomes, education levels, and poverty rates. 4. Corruption: Corruption is a significant challenge facing the social sector in India. Corruption can occur in various forms, such as embezzlement of funds, bribery, and nepotism. Corruption can lead to the misappropriation of resources meant for social development programs, resulting in a shortage of resources for beneficiaries. It can also lead to poor service quality, as corrupt officials may neglect their duties and responsibilities. 5. Inadequate monitoring and evaluation: Monitoring and evaluation are critical components of social development programs, as they help to ensure that programs are meeting their objectives and benefiting their intended beneficiaries. However, monitoring and evaluation mechanisms in India are often inadequate, resulting in a lack of accountability and transparency. This can hinder the effectiveness of social development programs, as it becomes difficult to track their progress and identify areas that need improvement. Addressing these challenges requires concerted efforts from various stakeholders, including the government, civil society organizations, and the private sector. These stakeholders need to work together to increase the resources available for social development programs, improve service quality, and promote equal distribution of services. This can be achieved through measures such as increasing public investment in social sectors, strengthening monitoring and evaluation mechanisms, and promoting transparency and accountability in service delivery. Additionally, anti-corruption measures need to be strengthened to prevent the misappropriation of resources meant for social development programs. By addressing these challenges, the social sector in India can effectively promote social development, reduce poverty, and address inequalities.

Opportunities for the Social Sector in India: The social sector in India faces several challenges, but there are also several opportunities that exist for promoting social development, reducing poverty, and addressing inequalities. In this section, we will discuss some of the opportunities that exist for the social sector in India. 1. Demographic dividend: India is home to a large and young population, which presents a significant demographic dividend. The working-age population (15-64 years) is expected to grow by 10 million per year until 2025. This presents an opportunity for the social sector to invest in education and skill development programs that can equip young people with the necessary skills to participate in the country's growing economy. Additionally, this demographic dividend presents an opportunity for the social sector to address social issues such as gender inequality and promote inclusive growth. 2. Technological innovation: India has experienced significant technological advancements in recent years. This presents an opportunity for the social sector to leverage technology to improve the quality of social services and increase their reach. For example, digital platforms can be used to deliver education and healthcare services to remote areas, and mobile technology can be used to provide financial services to those who are unbanked. 3. Private sector engagement: The private sector has an

important role to play in promoting social development in India. The government has introduced several initiatives to encourage private sector engagement in social development programs, such as the Corporate Social Responsibility (CSR) mandate, which requires companies to allocate a portion of their profits towards social development initiatives. Private sector engagement presents an opportunity for the social sector to leverage the resources and expertise of the private sector to address social issues.

4. Social entrepreneurship: Social entrepreneurship presents an opportunity for the social sector to promote sustainable social development. Social entrepreneurs are individuals who use business principles to address social issues. India has a growing social entrepreneurship sector, which presents an opportunity for the social sector to partner with social entrepreneurs to address social issues such as poverty and inequality.

5. International partnerships: India has several international partnerships and collaborations that can be leveraged to promote social development. For example, India has partnered with the United Nations to implement the Sustainable Development Goals (SDGs), which include several targets related to social development. Additionally, India has partnered with other countries and organizations to implement social development programs. Addressing these opportunities requires a collaborative effort from various stakeholders, including the government, civil society organizations, and the private sector. The social sector can leverage these opportunities to promote social development, reduce poverty, and address inequalities in India. This can be achieved through measures such as investing in education and skill development programs, promoting technological innovation, encouraging private sector engagement, supporting social entrepreneurship, and strengthening international partnerships. By addressing these opportunities, the social sector in India can effectively promote social development, reduce poverty, and address inequalities.

Education Sector: Education is a critical sector for the development of any country. In India, the education sector is faced with several challenges, but there are also several opportunities that exist for the sector. In this section, we will discuss the challenges and opportunities facing the education sector in India.

Challenges facing the education sector in India:

1. Access to education: Despite several initiatives by the government, access to education remains a significant challenge in India. According to the latest available data, the literacy rate in India is 74.4%, which is lower than the world average of 86.3%. Additionally, access to education is unequal, with rural areas and marginalized communities having lower access to education than urban areas.
2. Quality of education: The quality of education in India is another significant challenge. The National Achievement Survey (NAS) conducted by the government found that the learning outcomes of students in the country are low. Additionally, there is a shortage of qualified teachers in the country, which impacts the quality of education.
3. Equity in education: There is a significant disparity in the quality of education received by students from different socio-economic backgrounds in India. Children from lower

socio-economic backgrounds often attend poorly-funded schools with low-quality infrastructure and less qualified teachers, while children from more affluent families attend well-funded schools with better infrastructure and qualified teachers. 4. Outdated curriculum: The curriculum in many Indian schools is outdated and does not adequately prepare students for the challenges of the modern world. There is a need to update the curriculum to include more practical skills, such as critical thinking and problem-solving. Opportunities in the education sector in India: 1. Technology: Technology presents several opportunities for the education sector in India. The government has launched several initiatives, such as the Digital India campaign, which aims to promote the use of technology in education. Technology can be used to improve access to education, especially in rural areas. Additionally, technology can be used to deliver high-quality education to students, irrespective of their location. 2. Private sector engagement: The private sector has an important role to play in improving the quality of education in India. Private companies can invest in education infrastructure and technology, which can improve the quality of education. Additionally, private sector engagement can help to bridge the gap in education quality between students from different socio-economic backgrounds. 3. Collaboration between government and civil society organizations: Collaboration between the government and civil society organizations can help to address some of the challenges facing the education sector in India. Civil society organizations can help to improve access to education, especially in marginalized communities. Additionally, civil society organizations can help to improve the quality of education by providing teacher training and other resources. 4. Skills development: There is a growing need for practical skills in the Indian job market. The education sector can play a significant role in equipping students with the necessary skills to succeed in the job market. Additionally, skills development can help to reduce unemployment in the country. 5. Public-private partnerships: Public-private partnerships can be used to improve access to education in India. The government can partner with private companies to build and maintain schools in areas where access to education is limited. In conclusion, the education sector in India faces several challenges related to access, quality, and equity. However, there are also several opportunities for the sector, including the use of technology, private sector engagement, collaboration between government and civil society organisations, skills development, and public-private partnerships. Addressing these opportunities requires a collaborative effort from various stakeholders, including the government, civil society organisations, and the private sector. By addressing these opportunities, the education sector in India can effectively promote access to education, improve the quality of education, and address issues of equity in education.

Health Sector: India has made significant progress in healthcare, but the sector still faces several challenges. While the government has taken various measures to improve healthcare access, quality, and affordability, these challenges persist. The challenges

and opportunities in the health sector in India are discussed below.

Access to Healthcare: Access to healthcare in India is still a challenge, particularly in rural areas, where there is a shortage of doctors and medical facilities. The government has launched various initiatives to address this problem, such as the National Health Mission, which aims to provide affordable and accessible healthcare to all citizens. The government has also launched the Ayushman Bharat scheme, which aims to provide health insurance coverage to 500 million people.

Quality of Healthcare: Quality of healthcare in India is also a significant concern. Although India has a large number of medical colleges and hospitals, the quality of healthcare is not up to the mark. There is a shortage of skilled medical professionals in the country, which affects the quality of healthcare. The government has taken various measures to improve the quality of healthcare, such as the National Quality Assurance Standards for public health facilities. However, there is still a long way to go to ensure that healthcare services meet the required quality standards.

Affordability of Healthcare: Affordability of healthcare in India is a significant challenge, particularly for the poor and underprivileged sections of society. The high cost of healthcare is a barrier to access to healthcare for many people. The government has launched various schemes to provide affordable healthcare to all citizens, such as the Pradhan Mantri Jan Arogya Yojana, which provides health insurance to families living below the poverty line.

Opportunities in the Health Sector: The health sector in India presents several opportunities for growth and development. The sector has the potential to attract significant investments, both domestic and foreign. The government has launched various initiatives to encourage private investment in the healthcare sector, such as tax incentives and subsidies. The rise in medical tourism in India also presents an opportunity for growth in the healthcare sector.

Digital Health: Digital health is an emerging field in India, which presents significant opportunities for growth and development. The government has launched various initiatives to promote digital health, such as the National Digital Health Mission. The use of technology in healthcare has the potential to improve the quality of healthcare, increase access to healthcare services, and reduce the cost of healthcare.

Public-Private Partnerships: Public-Private Partnerships (PPPs) present an opportunity for the government and private sector to work together to improve healthcare services in the country. The government has launched various initiatives to encourage PPPs in the healthcare sector, such as the Public-Private Partnership in Health (PPP-H) programme. PPPs can help improve access to healthcare services, improve the quality of healthcare, and reduce the cost of healthcare.

Social Welfare Sector: The social welfare sector in India has been a crucial area of focus for the government, non-governmental organizations, and civil society. However, despite the significant efforts made by various stakeholders, challenges remain in addressing poverty, social protection, and inclusion. The challenges and opportunities in the social welfare sector in India are discussed below.

Poverty: Poverty is one of the

significant challenges in India, affecting a large section of the population. The government has launched various initiatives to reduce poverty, such as the National Rural Employment Guarantee Act (NREGA), which guarantees a hundred days of employment to every household in rural India. Other initiatives include the Pradhan Mantri Gram Sadak Yojana, which aims to provide all-weather road connectivity to rural areas, and the National Social Assistance Programme, which provides social assistance to the elderly, widows, and disabled people. Social Protection: Social protection is a critical aspect of the social welfare sector in India, particularly for vulnerable sections of society such as women, children, and senior citizens. However, social protection programs in India are fragmented and poorly coordinated, resulting in poor coverage and inadequate benefits. The government has launched various initiatives to address this problem, such as the National Social Security Scheme, which provides a pension to vulnerable sections of society, and the Pradhan Mantri Matru Vandana Yojana, which provides cash incentives to pregnant and lactating women. Inclusion: Inclusion is another significant challenge in India, particularly for marginalized and disadvantaged sections of society such as scheduled castes and tribes, minorities, and persons with disabilities. Discrimination and exclusion are still prevalent in various aspects of society, including education, employment, and access to services. The government has launched various initiatives to promote inclusion, such as the National Scheduled Castes Finance and Development Corporation, which provides financial assistance to scheduled castes, and the National Handicapped Finance and Development Corporation, which provides financial assistance to persons with disabilities. Opportunities in the Social Welfare Sector: Despite the challenges in the social welfare sector in India, there are several opportunities for growth and development. Digitalization: Digitalization presents an opportunity for the government to improve the delivery of social welfare services in India. The government has launched various initiatives to promote digitalization, such as the Digital India campaign, which aims to transform India into a digitally empowered society and knowledge economy. The use of technology can improve the efficiency and effectiveness of social welfare programs and reduce corruption and leakages. Public-Private Partnerships: Public-Private Partnerships (PPPs) present an opportunity for the government and private sector to work together to address social welfare challenges in India. The government has launched various initiatives to promote PPPs in the social welfare sector, such as the Corporate Social Responsibility (CSR) initiative, which requires companies to contribute a portion of their profits to social welfare programs. PPPs can help improve the coverage and quality of social welfare programs and leverage private sector expertise and resources. Social Entrepreneurship: Social entrepreneurship presents an opportunity for individuals and organizations to address social welfare challenges in India. Social entrepreneurs can develop innovative solutions to social welfare challenges, leverage technology and digitalization, and create sustainable and scalable models for social impact. The

government has launched various initiatives to promote social entrepreneurship in India, such as the National Skill Development Corporation, which provides skills training to youth and promotes entrepreneurship.

Government Policies and Initiatives: The Indian government has launched several policies and initiatives to address the challenges facing the social sector in the country. Some of these policies and initiatives are discussed below, along with an evaluation of their effectiveness.

1. National Rural Employment Guarantee Act (NREGA): The National Rural Employment Guarantee Act (NREGA) was launched in 2005 with the aim of providing 100 days of employment to every household in rural India. The program has been effective in providing employment opportunities to rural households and improving their economic conditions. However, the program has faced criticism for delays in payment and implementation issues.
2. Pradhan Mantri Jan Dhan Yojana (PMJDY): The Pradhan Mantri Jan Dhan Yojana (PMJDY) was launched in 2014 with the aim of providing financial inclusion to every household in India. The program has been effective in opening bank accounts for a large number of households and improving their access to financial services. However, the program has faced criticism for the poor quality of services provided by some banks and issues related to fraudulent accounts.
3. Swachh Bharat Abhiyan: The Swachh Bharat Abhiyan (Clean India Campaign) was launched in 2014 with the aim of achieving a clean and open-defecation-free India. The program has been effective in creating awareness about cleanliness and improving sanitation facilities in various parts of the country. However, the program has faced criticism for lack of sustainability, with some areas reverting to their previous conditions after the initial improvements.
4. National Health Mission (NHM): The National Health Mission (NHM) was launched in 2013 with the aim of improving the health status of people, especially those in rural areas, through various initiatives. The program has been effective in improving maternal and child health indicators and increasing the availability of essential drugs and diagnostic facilities. However, the program has faced criticism for inadequate funding and weak implementation.
5. Pradhan Mantri Ujjwala Yojana (PMUY): The Pradhan Mantri Ujjwala Yojana (PMUY) was launched in 2016 with the aim of providing free LPG connections to women from below-poverty-line households. The program has been effective in improving the health of women and reducing indoor air pollution. However, the program has faced criticism for inadequate monitoring and verification of beneficiary eligibility.

Recommendations for Improving the Social Sector in India: The social sector in India has several challenges related to access, quality, affordability, and sustainability. To address these challenges and improve the social sector, several recommendations can be considered, including:

1. Increase public investment in social sectors: There is a need to increase public investment in social sectors such as health, education, and social welfare to improve access and quality of services. This can be done by allocating more

resources towards social sectors in the government budget, increasing the effectiveness of existing social sector programs, and exploring innovative financing mechanisms such as public-private partnerships. 2. Improve the quality of services: Improving the quality of social sector services is essential to ensure that they meet the needs of the people. This can be done by investing in training and capacity building of service providers, promoting evidence-based decision-making, and ensuring adequate resources and infrastructure for service delivery. 3. Address inequalities in service provision: There are significant disparities in social sector service provision across different regions, communities, and socio-economic groups in India. Addressing these inequalities requires targeted interventions such as affirmative action policies, resource allocation based on need, and monitoring and evaluation of service provision. 4. Strengthen anti-corruption measures: Corruption is a significant challenge in the social sector, leading to poor service delivery, misallocation of resources, and erosion of public trust. Strengthening anti-corruption measures such as transparency, accountability, and whistleblower protection is essential to reduce corruption and improve the effectiveness of social sector programs. 5. Promote private sector engagement: Private sector engagement can bring innovation, efficiency, and resources to the social sector. However, it is essential to ensure that private sector engagement is guided by the principles of equity, access, and quality. This can be done by promoting social impact investing, encouraging corporate social responsibility, and developing effective regulatory frameworks for private sector engagement.

CONCLUSION

In conclusion, the social sector plays a critical role in promoting social development and reducing poverty and inequality in India. The sector comprises various services such as health, education, social welfare, and others, which are essential for addressing the social challenges faced by the country. However, the social sector in India faces several challenges related to access, quality, affordability, and sustainability. The lack of adequate resources, infrastructure, and capacity is one of the primary barriers to delivering quality social services to the people. Additionally, issues related to corruption, inequities in service provision, and inadequate regulatory frameworks further exacerbate the challenges faced by the social sector. To address these challenges, the government has implemented several policies and initiatives aimed at improving the social sector's effectiveness and efficiency. These policies include measures such as the National Health Mission, the National Education Policy, the Mahatma Gandhi National Rural Employment Guarantee Act, and the National Social Assistance Programme, among others. However, the effectiveness of these policies and initiatives is mixed, and there is a need for continued efforts to improve their implementation and impact. Recommendations for improving the social sector in India include increasing public investment, improving service quality, addressing inequalities in service provision, strengthening anti-corruption measures, and promoting private sector engagement.

These recommendations are essential to ensure that social services are accessible, affordable, and of high quality, and that they meet the needs of all segments of the population.

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INFLATION IN INDIA ITS CAUSES AND REMEDIES

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INTRODUCTION

Inflation, deflation, trade cycles are the problems faced by all nations of the world. For the economic development of a country, the prices of goods and services must be stable, otherwise there is a possibility of hampering the economic development. Inflation or deflation has both favorable and unfavorable effects on industry services and agriculture sector.

During a period of inflation, the prices of goods increase substantially and the value of money decreases. People's purchasing power decreases and it adversely affects various sections of the society. According to economist that the price increase of 2021-22 is remarkable compared to the last ten years. The inflation rate was 3.33 percent in 2017. Which increased 5.13 percent in 2021. In 2016-17, the Consumer Price Index was 4.5% and the Wholesale Price Index was 1.7%. From the above statistics, it can be seen that in the year 2017, the ratio of Wholesale Price Index is lower compared to Consumer Price Index. However, in 2021-22, there is a contradiction between the two factors, Wholesale Price Index and Consumer Price Index. In 2021-22, the Consumer Price Index was 5.2% and the Wholesale Price Index was 13.11%. From the above data, it can be seen that the wholesale price index has seen a huge increase compared to the consumer price index. In my research paper I have tried to study the causes, solutions and current situation of inflation in India. High wholesale price index and low consumer price index are the main reason for inflation in Indian economy.

Importance of the Study: All the nations of the world have to face this problem of inflation. People in developed countries have higher per capita income as compared to less developed countries. Therefore, less developed countries are more adversely affected by price increase than developed countries.

Inflation creates price instability in the economy. Inflation has favorable and unfavorable effects on the economy the fixed income group loses while the variable income group gains from a rise in prices. This problem can create instability in the economy so there must be stability in the economy. In my research paper I have tried to find out the causes of inflation in Indian economy and suitable recommendations are made to reduce inflation. Hence, there is a need to study the topic.

OBJECTIVES

1. To study the current situation of inflation in India
2. To study the causes of inflation in India

RESEARCH METHODOLOGY : The present research is based on secondary sources those include review of literature, Economic survey of India, NITI Aayog reports, Reserve Bank of India Handbook, World Bank and IMF reports, magazine,

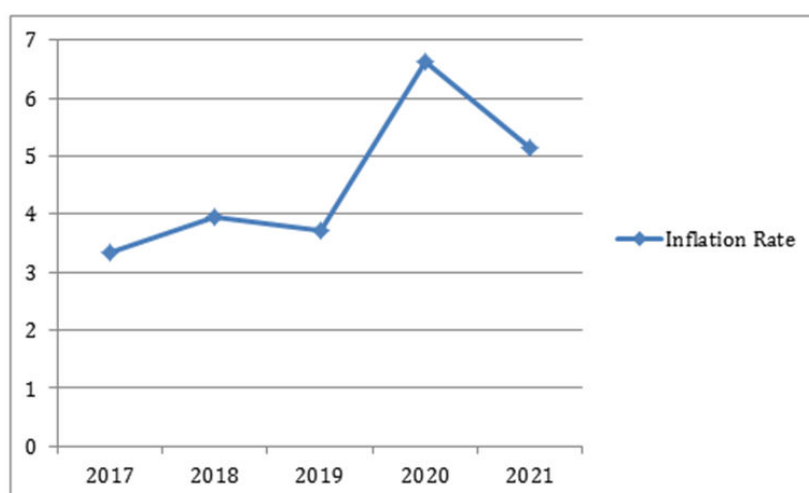
Journal, articles in newspaper, etc. have been used to finish the research.

Present Situation of Inflation in India:

Table .No. 1: Indian Inflation Rate (In Percentage)

Year	Inflation Rate	Annual Change
2017	3.33	-1.62
2018	3.94	0.61
2019	3.73	-0.21
2020	6.62	2.89
2021	5.13	- 1.49

Source: www.Inflationateinindia



The above table shows the inflation rate. Inflation rate in 2017 was 3.33%. In the year 2021, the inflation rate increased to 5.13%. The inflation rate has increased over the five-year period from 2017 to 2021.

Table No.2 general Inflation Based on Different Price Indices (In Percentages)

Year	CPI (Consumer price index)	WPI (wholesale price Index)
2014-15	5.9	1.2
2015-16	4.9	- 3.7
2016-17	4.5	1.7
2017-18	3.3	2.9
2021-22	5.2	13.11

(Source: Economic Survey of India 2021-22)

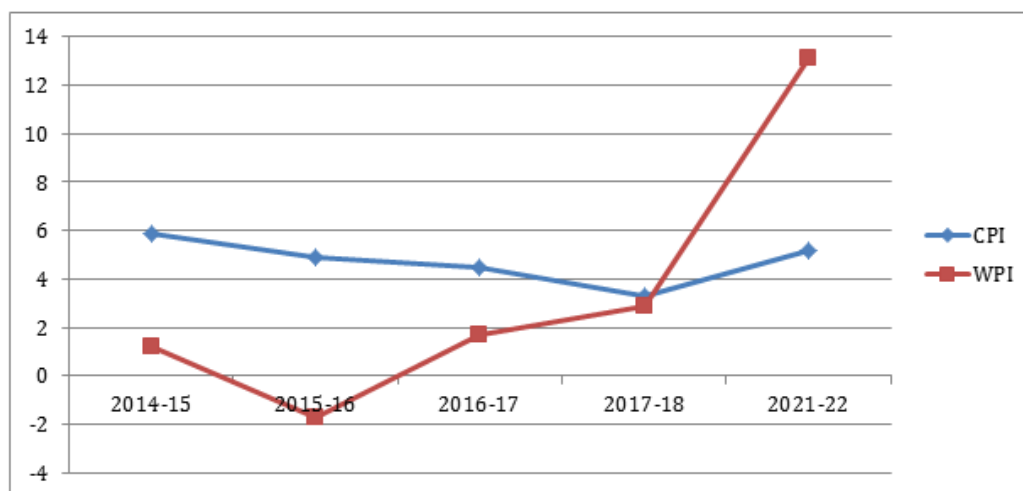


Table No 2. shows the Consumer Price Index and Wholesale Price Index. Consumer Price Index was 5.9% in 2014-15. It decreased to 5.2% in 2021-22. There has been a decline in the Consumer Price Index from 2014-15 to 2020-21. The wholesale price index was 1.2% in 2014-15. The wholesale price index has increased by 13 percent in 2021-22. The wholesale price index has increased during the period 2014 -15 to 2021-22. Wholesale Price Index is lower than Consumer Price Index during the period 2014 15 2017 18. But in 2021-22, the wholesale price index has increased more than the consumer price index. During the period from 2014 -15 to 2017- 18, the Consumer Price Index was higher and the Wholesale Price Index was lower. But in 2021-22, the wholesale price index has increased more than the consumer price index. The increase in the wholesale price index in 2021-22 is remarkable. The main cause of inflation in India will be a significant rise in the wholesale price index. Before 2021, the ratio of wholesale price index is low and the ratio of consumer price index is seen to be high.

Causes of Inflation in India:

- 1. An Increase in the Money Supply:** An increase in the money supply leads to an increase in aggregate demand and thus inflation
- 2. Reduction In Taxation:** Tax Reduction by the government can create additional demand in the economy
- 3. Increase in Private Expenditure:** An increase in private spending can lead to inflation in the economy.
- 4. Shortage of Production Factors:** Production requires factors like labour, raw materials, electricity, capital, etc. Due to shortage of these factors, prices rise in the economy.
- 5. Stocking done by the Trader:** Stock bets by traders when commodity prices rise can also be an important cause of inflation.

6. **Increase in Exports:** Inflation occurs in the economy when there is production for export.

Causes of Current Inflation in India:

1. **Increase in Population:** As the population increases, the number of consumer's increases and the overall demand for goods and services increase. Due to this reason, the price increase in the Indian economy has increased to a large extent.
2. **Increased Black Money in the Economy:** Increased black money in the economy Due to this reason also the prices increase in the economy. Consumers use this money to build a house, buy a car, buy luxury goods, weddings, birthdays, etc.
3. **Natural Disaster:** Natural calamities like Covid-19, floods have also increased the commodity prices in the Indian economy.
4. **Ukraine Russia War:** The rise in crude oil prices due to the Russia-Ukraine war has led to an increase in commodity prices in the Indian economy.
5. The rise in petrol prices and the rise in GST rates have also led to an increase in commodity prices in the Indian economy.

REMEDIES

1. Using electric vehicles instead of petrol and diesel vehicles
2. GST rates must be stable
3. Strict population policy
4. Controlling the Black money in the economy
5. Monetary Instruments used to control inflation such as bank rate policy, cash reserve ratio, open market operations.
6. Fiscal measures to control inflation such as taxation, government expenditure, and public borrowing, etc.

CONCLUSION

Many factors are responsible for the problem of inflation in the Indian economy For example, increase in money supply, reduction in taxation, reduction in private expenditure, Growth in exports, Increase in population, Increase in black money in the economy, naturaldisaster, rising petrol, diesel prices, Increase in GST rate.etc.

But due to the above reason inflation in Indian economy has been reduced by using the tool of fiscal policy and monetary policy. Monetary Policy and Fiscal policy has not been successful in reducing inflation in 2021 22.Because the reasons for the inflation in 2021-22 was of a different nature. In the period of last ten years, the Indian economy has never seen a situation where the consumer price index was low and the wholesale price index was high. In 2021-22, the situation was on the opposite side, with higher

wholesale price index and lower consumer price index, leading to inflation in the Indian economy. According to many economists, Inflation has not increased as much in the last ten years as Compared with 2021-22.

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ASYMMETRIC EFFECTS OF INDUSTRIAL GROWTH ON CARBON EMISSIONS IN INDIA: EVIDENCE FROM NON-LINEAR PANEL ARDL MODEL

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1. INTRODUCTION

Industrial growth is a long-term process providing the potential output in any country. It is important for every nation and in this race to disastrously exploit natural resources. Economic growth increases the standard of living in any community, Industrial sector also contribute a large share in economic growth. It guarantees a better quality of life. From a long time, the relationship between sustainable economic growth and ecological performance has been a strong discussion. Therefore, many studies have examined the association between economic growth and environmental degradation, yielding a variety of conclusions, including indications of an inverse association in some circumstances. The Environmental Kuznets Curve (EKC) model shows an inverted-U relationship between economic growth and environment degradation. This model shows that pollution and degradation of natural resources increase rapidly in the initial phase of development. While in second phase connection become inverse and pollution fall after a specific level of development. Thus, a shift in the connection has been viewed because of enhancing cooperation at a certain point in economic development; communities are more concerned with fresh air and strong forests with increased profits. Scholars, as well as policymakers, have reacted differently to the Environmental Kuznets curve theory, resulting in diverse results and confusing conclusions (Kahuthu, 2006).

Humanity faces two main challenges: sustainable growth and environmental protection. However, as land pollution raises concerns regarding the climate crisis, which is mostly caused by carbon dioxide emissions, the environment has become a more pressing concern for developed and emerging nations (Kasman & Duman, 2015; Uddin et al., 2017). Carbon dioxide (CO₂) emissions are the most significant portion of the GHGs. The causal relationship between the effect of CO₂ emissions on the gross domestic product (GDP) and electric usage has attracted the attention of researchers for decades (J. B. Ang, 2007; Saidi & Hammami, 2016).

Nowadays, Environmental degradation is a highly important environmental concern and attracting the attention of international organizations, academics, and politicians in the same way (Acheampong, 2018; Shaw et al., 2018). However, power usage is a fundamental input in the growth model and helps the manufacturing of products; lowering CO₂ emissions by waste reduction will harm economic development (Mardani et al., 2019). As a result, determining the causal relationship between these factors is

crucial for developing a suitable economic plan in emerging regions (Wagner et al., 2001). For example, a positive link seen between parameters studied means that an efficient program would have a harmful implication and improve the natural atmosphere (Carfora et al., 2019). As a result, implementing a growth strategy, particularly in a carbon industry has the potential to accelerate environmental degradation.

Furthermore, energy plays a crucial part in the economic performance of the country. However, it is a serious environmental issue (Apergis & García, 2019). Global energy use has increased by fifty percent in the last two decades relative to 1995. Improving energy usage is a major risk to environmental sustainability due to its negative effects on environmental conditions (Danish et al., 2019). In addition, numerous primary components, including the energy sector are predicted to increase fuel consumption. (Espa & Holzer, 2018). Holding the economic growth of the developing nations is a critical test in setting ecological goals. In particular, economic growth is the main force required for the BRICS economies (Shao et al., 2019). For instance, China provides more than twenty percent of the world's Gross domestic product, while it unclean the atmosphere by supplying above forty percent of overall CO₂ discharges (Dong et al., 2017). Such realities have real consequences for regulating GHG and air pollution (Reilly, 2012).

There might be a few focal points for expanding interest in energy efficiency. For example, by reducing fossil fuel by-products, reducing dependency on the FFs, improving energy security, surviving power deficiencies, and causing, reducing weight on the environment (European Commission - The Joint Research Centre, 2015). Furthermore, energy efficiency is a crucial element of BRICS economies' green advancement policies, which expect to minimize CO₂ emissions by improving the use of electricity (Bayar & Gavriletea, 2019). Additionally, achieving feasible progress goals often includes the use of enhanced energy (Shahbaz et al., 2019). In this way, renewable and efficient energy is a major consideration for developed and developing countries to promote rapid economic growth, meet the power disparity, as well as decrease the impacts of greenhouse gas discharges.

The present study fills the research gap by modeling the role of economic growth in affecting the environmental quality of selected developed countries. Based on the preceding discussion, the current study objectives can be summarized as follows:

- a. To find out whether industrial development threatens environmental condition of the country.
- b. To assess the form of causal relationships between economic growth, energy consumption and environmental degradation.

2. LITERATURE REVIEW

The first empirical study investigating the linkage between economic growth and environmental degradation (specifically CO₂ emissions) is the Kraft and Kraft's (1978) paper which uses data for the United States from 1947 to 1974 and finds evidence of a Granger causality from output to energy consumption. The linear relationships between GDP, FF, RE, and CO₂ emissions have been modeled by numerous surveys. For example, within a certain time, (Ran et al., 2020) determined the relationship between environmental deregulation and carbon emissions in China. Economic growth and natural resources have a beneficial influence on China's CO₂ emissions, according to the findings. The short and long-term relationship between environmental quality indices and economic expansion was investigated by (Chen & Taylor, 2020). In the sense of the Indian economy, (Zameer et al., 2020) also explored the link between innovation, environment, and economic growth. The study revealed that in the long term, using ARDL bound testing and vector error correction model (VECM) techniques, trade openness, energy use, and economic growth positively guide CO₂ emissions. (OKUMUŞ & BOZKURT, 2020) examined the complicated links between the growth of the economy and ecological deterioration sequence across groupings of nations having various degrees of development in the context of the Environmental Kuznets curve (EKC) theory. EKC hypothesis is supported to the developing and developed groups of countries, but not for the low and high-income groups. (Abdouli & Hammami, 2020) observed that GDP growth, FDI inflows, environmental quality, and financial success all have an impact on CO₂ emissions for Middle Eastern nations. The data revealed a unidirectional causal relationship between energy consumption and GDP growth. Furthermore, these countries employ economic measures that promote economic progress while also protecting the environment. (Pata & Aydin, 2020) proposed that countries should consider the different ways of consumption of renewable energy because of environmental difficulties. Also, the outcome of RE is environmentally friendly.

Among the literature mentioned above, almost all papers have tried to get the relationship between GDP growth rate, Industrial growth rate and CO₂ emissions which is a serious weakness of these papers. Linking between GDP and CO₂ emissions is not suitable for India as more than 70% of GDP in India is driven by service and agricultural sectors, which are basically less energy intensive sectors in case of Bangladesh. Concern with the issue of aggregation bias has influenced many researchers to use disaggregated sectoral level data for their empirical research. The problems of using aggregate GDP data are manifold. Different sectors may need energy intensity differently and this will be ignored if aggregate GDP data are used in the analysis. Therefore, studies with aggregate GDP data often produce at ambiguous or conflicting results or sometimes even no results at all.

3. DATA AND METHODOLOGY

3.1 Variable and Data-In order to gain valuable insights into the long-run and short-run dynamics as well as the causal relationships between industrial development, energy consumption and carbon emissions in India, three variables namely (CO-) Carbon Dioxide Emission as dependent variable, (EC)- Energy Consumption, (IG)- Industrial Growth as independent variables have been used in the study. Therefore we simply say that CO is a function of EC and IG.

Carbon Emissions = f (Energy Consumption, Industrial Growth)

Our Regression Model Will Be Like,

$$CO_2 = \alpha + \beta_1 EC + \beta_2 IG + \mu \dots \dots \dots (I)$$

$$CO_{2t} = \alpha + \alpha CO_t + \beta_1 EC_t + \beta_2 IG_t + \mu_t \dots \dots \dots (II)$$

Equation II Shows the Auto-Regression Model.

3.2 Co integration testing using ARDL bounds testing approach- The ARDL Bounds Testing technique will be employed to investigate the possible existence of co integration among the variables under study or whether they possess long run equilibrium relationship as well as extracting both the long-run and short-run dynamics.

$$\Delta CO_{2t} = \alpha + \alpha_1 CO_{t-1} + \beta_1 EC_{t-1} + \beta_2 IG_{t-1} + \mu_{t-1} \dots \dots \dots (III)$$

Equation III Shows the Distributional lags

In this study, we can say that in ARDL model, CO2 is dependent model, and energy consumption & Industrial growth is independent model. After looking the data, as the Industrial sector rise at faster rate, CO2 emission also rise, because industrial sector and energy consumption both are correlated. Both the positive sectors Energy and Industrial sector are correlated with CO₂ emission. The table1 and 2 are showing that not only Industrial sector positively related, but also other agriculture and service sector also related positively, because as the industrial sector reduce, CO2 emission rise or stagnant.

4. CONCLUSION AND POLICY IMPLICATION

4.1 Conclusion- This paper has examined the empirical co integration, long and short-run dynamics and causal relationships among industrial production, energy consumption and CO2 emissions in the case of India over the period of 1991–2021. We have applied the ARDL Bounds Testing methodology to investigate the co integration. The ARDL bounds tests as well as additional cross-checking confirmed both short and long-run co integration between the carbon emissions and industrial production, carbon emissions and energy consumption, and industrial production and energy consumption. The industrial production and energy consumption positively and significantly impact the carbon emissions both in the short and long-

runs. The estimated model passed all the diagnostics tests and was also found to be stable. In this study, we can say that in ARDL model, CO₂ is dependent model, and energy consumption & Industrial growth is independent model. After looking the data, as the Industrial sector rise at faster rate, CO₂ emission also rise, because industrial sector and energy consumption both are correlated. Both the positive sectors Energy and Industrial sector are correlated with CO₂ emission. The table 1 and 2 are showing that not only Industrial sector positively related, but also other agriculture and service sector also related positively, because as the industrial sector reduce, CO₂ emission rise or stagnant.

4.2 Public Policy

Efficient implementation of energy policies and environmental laws, exploring and shifting to environment friendly energy generating projects and exploiting sources like water, wind, solar, nuclear and hydrogen based energy, natural gas exploration and other low-carbon generating sources of energy and raising the productivity of the energy input should be the target. Switching in clean energy, and proper formulation and implementation of environmental laws and policies are the targetable future recourses for the country. China, Indonesia, Morocco, Mali, Georgia and Uruguay are successful in having benefits of using energy efficient technologies.

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ANNEXURES:

Table-1

Year	CO2 *(KT)	**GIS
1991	607230	15.67626
1992	626290	15.8008
1993	651350	15.91571
1994	685900	16.76414
1995	737860	17.86585
1996	774070	17.59634
1997	819270	16.51858
1998	836270	15.71932
1999	901330	15.18054
2000	937860	15.92702

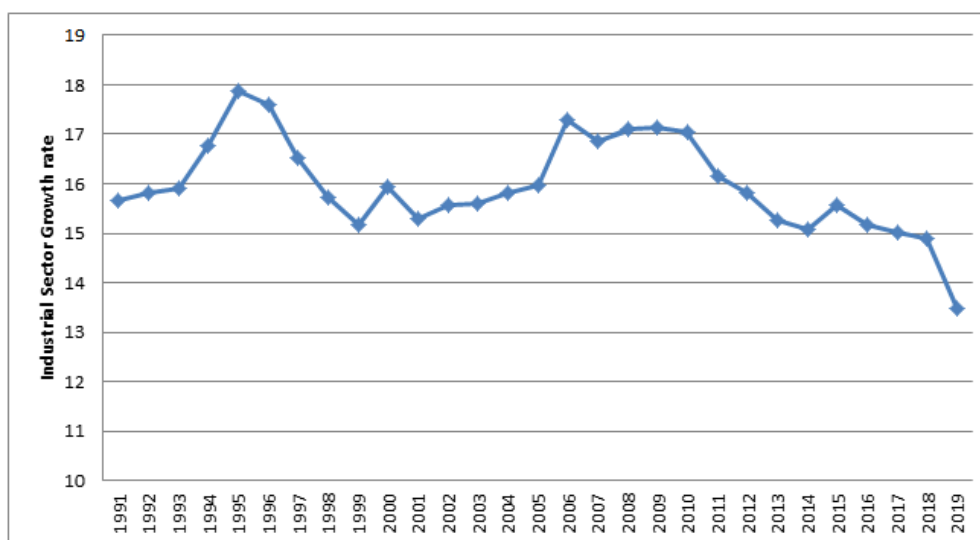
2001	953540	15.30702
2002	985450	15.5587
2003	1011770	15.58739
2004	1085670	15.82725
2005	1136470	15.97302
2006	1215210	17.30365
2007	1336740	16.86457
2008	1424380	17.09867
2009	1564880	17.14358
2010	1659980	17.02993
2011	1756740	16.13934
2012	1909440	15.81692
2013	1972430	15.25302
2014	2147110	15.06557
2015	2158020	15.58385
2016	2195250	15.16224
2017	2320410	15.01824
2018	2451930	14.88153
2019	2456300	13.47362

Sources- World Bank Climate Watch-2020

*CO(KT)- Carbon Emission in Thousand Tonnes

**GIS- growth in Industrial Sector

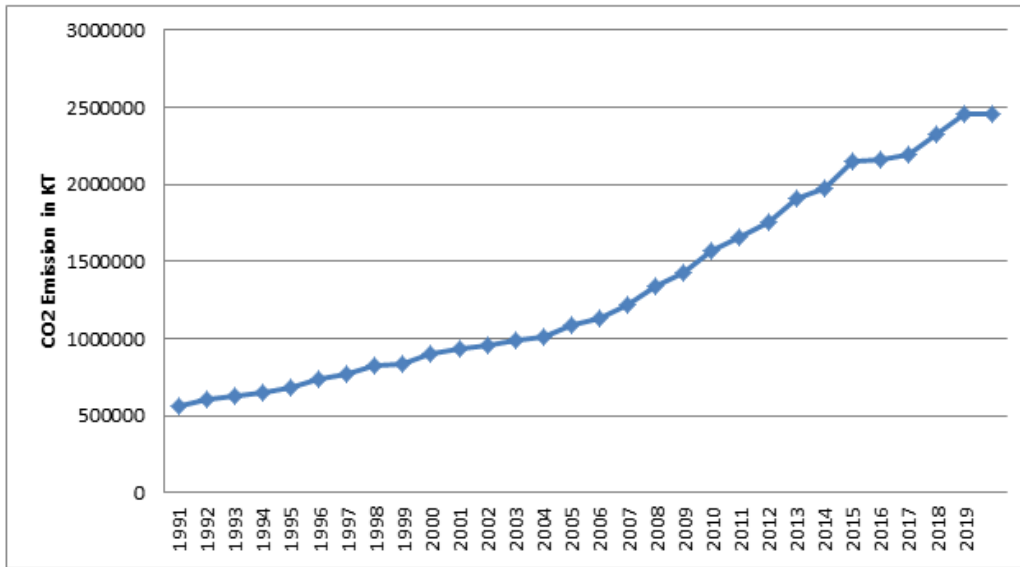
Figure-1



Time Series

Sources-World Bank Climate Watch-2020

Figure-2



Time Series

Sources-World Bank Climate Watch-2020

A STUDY ABOUT RELATIONSHIP BETWEEN ECONOMIC GROWTH AND UNEMPLOYMENT IN INDIA

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I. INTRODUCTION

Unemployment is regarded as a serious problem faced by most developing countries and affects the socio-economic operations to a great extent. There has been given great attention by the governments to create job opportunities and operation of idle units to eliminate this phenomenon. Many studies have been given and put out confirming different reasons for the existence of this inter-linking relationship between unemployment and economic growth in India. Several reasons behind this are stated to be attributing to the shortage of employment and economic growth accompanying with incremental population, inability to mobilize domestic savings in financing desired investments, decline in economic activities due to recession, changes in technology, changes in consumer demand, on-qualifying employment, which are not commensurate with the changes in labor market.

Unemployment is a term referring to individuals who are capable of getting employed and actively seeking a job but are unable to find a job. Usually measured by the unemployment rate, which is dividing the number of unemployed people by the total number of people in the workforce, unemployment serves as one of the indicators of shortage of Economic Growth in India. Unemployment usually comes as a result of disequilibrium between demand and supply in the labor market. It is a widely accepted view that the growth rate of GDP directly affects employment. If it rises, then employment will rise and the unemployment rate will fall. The development of a nation is depending on GDP, and GDP is depending on the utilization of resources, especially Human Resources, because the physical and financial resources do not work automatically if not managed by the Human Resources. If human factor is not taken care of then our natural resources, capital and infrastructure may be underutilized or misused.

This research paper is an attempt in this direction on studying the causes of unemployment, why unemployment and economic growth are interlinked, to analyze how to engage unemployed human resources into self-employment, or in any other type of employment, in short how to achieve full employment situation. Full employment is always being the dream situation for all over the world, technological advances and the speed with which opportunities for employment also created.

Moreover, the working age population which is considered as the demographic dividend has been led to the bulge by the declining fertility rate. It is a great concern that how this bulge in working age population presents the opportunities for growth and prosperity of the nation.

II. REVIEW OF LITERATURE

In the past decades, there have been an extensive theoretical and empirical research on the relationship between unemployment and economic growth, but the situation still remains in the condition of which those looking for a job do not find any even if they were ready to take it on at a lower real wage level than the generally established one.

Apurba Krishna Bhattacharya (1965) suggested in his study of the education pattern and the employment structure of Madhya Pradesh, that the government should focus on the development of education, re-organization of employment exchanges, regional mobility required, promotion of small-scale industries, establishment of work and orientation centers, educational re-constructions, rapid industrialization, population control and provide job guarantee to every people of the state.

The economist view that mass participation of unskilled labor will accelerate the growth process and the country will ensure productivity by focusing of development of the various stated education patterns. Major countries are of the opinion that the economic development must be twined with utilization of labor force and employment generation. The goal generally is to achieve rapid economic growth and provision of employment opportunities to the citizens. The opportunities of employment provide economic benefit to the labor and keep them to lead the life with assured income

Siddiqui (1982) examined variations in distribution of population under primary, secondary and tertiary occupations in which these variations show the differences in moderm and levels of economic development in the districts of the state. The high proportion of population in primary occupation engaged in agriculture indicates that there is lack of industrial and commercial development and lack of opportunities in other fields.

United Nations Population fund(2012) stated that when a woman is empowered, it does not mean declare that another person becomes more powerless but if a woman is empowered, her capabilities towards different points in her life will reflect her neighbor's and family's behavior. Thus, creating a 'social multiplier' where the influence of the woman towards his family and neighbor will be greater as an aggregate power. India has made extravagant effort in expanding and diversifying the economy. Some of the many problems has also been solved but many others still remaining unsolved. Women self-employment is considered to not only help solve the unemployment problem but also result in all round social and economic growth as to which there as such plenty known self-employment jobs for women which would

contribute to an extremely tremendous extend in the Economic Development of the country.

In 2015, Ranjini. M.L stated that greater emphasis should be given on training, education and creating awareness in order to achieve a larger and more lasting empowerment if women empowerment is to be pursued as a serious objective.

When we talk about the problems of any country or economy, one of the most crucial problems is of providing employment to its people.

OBJECTIVES

1. To analyze the nature of self-employment among the population in India.
2. To access the impact of various types of employment on economic empowerment of rural people.
3. To evaluate the various factors motivating various types of employment and the problem faced by the people in getting employment.
4. To examine the awareness of the people about government policies and programmes for providing them employment and their effectiveness.

III. RESEARCH QUESTIONS

1. What are the hurdles in the implementation of employment policies?
2. What is the role of small and medium scale industries in providing employment?
3. How can Micro industries be developed in remote areas?

IV. METHODOLOGY

The study investigates into the collection of materials and sources in analyzing present inter-linkage between the economic growth and unemployment by theoretical work undertaken primarily to acquire new knowledge of the underlying phenomena and observe facts which is specific to the original investigation to acquire new knowledge as to which unemployment declining the rate of economic growth can be taken into more possible changes concerning fundamental intellectual problems and queries. Data has been collected from secondary sources like online Journals, Government websites, Research papers and World Bank database.

V. INTER-LINKAGE BETWEEN ECONOMIC GROWTH AND UNEMPLOYMENT ANALYSIS

When there is high rate of unemployment, it is difficult for the state to manage the economy. The rate of increasing and decreasing unemployment level affects demand and supply of labor force. When there is too much unemployment, the economy tends to be in a state of imbalance between demand and supply which affects the Economic Growth to a large extent. Unemployment causes less demand of product in the market. Less demand causes slow rate of development and postpones investment due to poor

trade and commerce and low investment from manufacturing and non-manufacturing sectors.

Unemployment is an issue which does not exist in one location. On the contrary, it is a global phenomenon affecting numbers of places across the globe in which even the most developed countries in the world are also dealing with this issue. Unemployment affects the financial and economic condition of a whole country.

Employment in Organized Public Sector and Private Sector in India

Table 1: Year-wise Employment in Public and Private Sectors in India (in Lakhs)

Year	Public Sector	Private Sector	Total
2000	193.14 (69.07)	86.49 (30.98)	297.63 (100.00)
2001	191.39 (68.87)	86.51 (31.13)	277.9 (100.00)
2002	187.74 (69.01)	84.32 (30.99)	272.06 (100.00)
2003	185.8 (68.82)	84.17 (31.18)	269.97 (100.00)
2004	181.97 (68.82)	82.45 (31.18)	264.42 (100.00)
2005	180.06 (68.06)	84.52 (31.94)	264.58 (100.00)
2006	181.88 (67.47)	87.71 (32.53)	269.59 (100.00)
2007	180.02 (66.03)	92.6 (33.97)	272.62 (100.00)
2008	176.74 (64.24)	98.38 (35.76)	275.12 (100.00)
2009	177.95 (63.13)	102.91 (36.51)	281.86 (100.00)
2010	178.62 (62.22)	107.87 (37.57)	287.08 (100.00)
2011	178.62 (62.22)	107.87 (37.57)	297.08 (100.00)
2012	176.10 (59.53)	119.70 (40.57)	295.80 (100.00)

Source: Economic Survey 2010-2011, Government of India

Note: Data is Available till 2012.

Figures in the parenthesis indicate percentage to the total.

There is a significant co-relation between economic growth and the changing rate of unemployment which gives less rate of economic growth in the country. The unemployment rate also gives slow growth of opportunities for education, health facilities, income and balance between demand and supply.

The table 1 shows that the total employment in the organized sector increased to 295.80 lakh person in 2012 from 279.63 lakh persons in 2000 i.e., an increase to 0.9 times. The percentage share of total employment declined to 59.52% in 2012 from 69.07% in 2000, whereas the percentage of share as private sector increased to 40.57% in 2012 from 30.39% in 2000.

EMPLOYMENT IN ORGANIZED SECTORS – PUBLIC AND PRIVATE

The trend of changes in various sectors of organized sector both public and private, the sector-wise position of employment is shown in table 2.

Table 2: Employment in Organized Public Sector (Lakh Persons)

Sector	2005	2006	2007	2008	2009	2010	2017	2018	2019
Agriculture	4.96	4.69	4.75	4.71	4.77	4.78	6.39	2.16	4.39
Mining	10.14	11.46	11.37	11.21	11.12	11.03	14.2	12.5	12.5
Manufacturing	11.30	10.92	10.87	10.44	10.60	10.66	10.5	12.5	12.6
Electricity, Gas and Water	8.60	8.49	8.49	7.96	8.39	8.35	10.6	11.8	11.9
Construction	9.11	8.94	8.66	8.52	8.45	8.59	10.7	11.2	11.9
Trade	1.84	1.82	1.78	1.65	1.74	1.71	1.93	2.42	2.98
Transport	27.51	26.75	26.37	26.34	26.01	25.29	27.86	28.93	29.20
Finance, Insurance, Real Estate	14.08	13.90	13.69	26.34	26.01	14.13	16.10	16.19	17.21
Community, Social and personal Services	92.52	91.76	90.90	88.54	90.11	90.51	94.6	94.98	95.20
Total	180.07	178.73	176.88	172.84	174.75	175.05	192.8	192.6	197.8

Source: Ministry of Labour and employment, director General of employment and Training

The table 2 shows the total employment in organized public sector decelerated from 180.07 lakhs person in 2005 to 197.8 lakh person in 2019. The organized sector was dominated by the public sector which accounts for 70% of total employment in this sector. This is mainly due to the effect of community, social and personal services, transport, financial services, manufacturing and mining sectors. These collectively constitute a major share in total employment of organized public sector.

Table 3: Employment in Organized Private Sector

Sector	2005	2006	2007	2008	2009	2010	2017	2018	2019
Agriculture	9.83	10.28	9.50	9.92	8.96	9.23	10.21	10.09	10.01
Mining	0.79	0.95	1.00	1.11	1.15	1.61	1.91	2.01	2.13
Manufacturing	44.89	45.49	74.50	49.70	51.98	51.84	53.21	52.09	51.89
Electricity, Gas and Water	0.49	0.40	0.50	0.51	0.64	0.64	1.61	1.71	1.69
Construction	0.49	0.55	0.70	0.69	0.80	0.91	1.45	1.59	1.78
Trade	3.75	3.87	4.10	2.772	4.72	5.06	7.81	7.97	8.04
Transport	0.85	0.87	1.00	1.04	1.32	1.66	2.01	2.79	2.97
Finance, Insurance, real estate	5.23	6.52	8.80	10.96	13.11	15.52	17.86	17.94	18.67
Community, Social and Personal Services	18.20	18.78	19.50	21.73	20.23	21.40	23.27	23.89	24.54
Total	84.52	87.71	92.40	98.38	102.91	107.87	119.34	120.89	121.72

Source: Ministry of Labour and Employment, Director General of Employment and Training, Economic Survey 2010-2011, Survey 2010-2011

The above table shows that the total employment in organized private sector. The data in the table reveals that the total employment in organized private sector increased from 84.52 lakh persons in 2005 to 121.72 lakh persons by 2019. In this organized private sector, manufacturing sector has a major share in providing employment to the unemployed. i.e., 44.89 lakh persons in 2005 and it increased to 51.89 lakh persons by 2019. Behind the manufacturing sector community, social and personal services and agriculture sectors are the important sectors in providing employment to the people in organized private sector. The above data from the two tables and figures indicate that there is wider gap between the organized public and private sector in providing employment opportunities to the unemployed people in India.

The total employment of organized sector has increased slightly. Within the organized sector, the public sector employment has declined, whereas private sector employment has increased to a greater extent. The percentage share of male employment has declined throughout the period, whereas female employment increased in both public and private sectors. On the whole, the structure of employment has undergone various changes in the organized sector of India. The new employment opportunities are likely

to be generated in the unorganized sector. It will be characterized by poor condition of worker, lack of employment and social security providing.

Unemployment is widely regarded as a major social and economic global problem. The adverse consequences of unemployment have obvious and well-documented links to economic disadvantages and this has also been connected in some discussions to higher crime rates, especially among the youth. High and persistent unemployment has a negative effect on the economic growth of a nation. In the first place, it is a waste of human resources, widens the gap between the rich and the poor, drives people to poverty, erodes self-esteem, and promotes social dislocation, results in unrest and violence in the society. Unemployed youths are therefore readily available for anti-social criminal activities that undermine the stability of society.

VI. DISCUSSION AND EMERGING TRENDS:

The unemployment rate in India was last reported at 3.8 percent in 2010/11 fiscal year. Historically, from 1983 until 2011, India Unemployment Rate averaged 7.5700 percent reaching an all-time high of 9.4000 percent in December of 2009 and a record low of 3.8000 percent in December of 2011. The unemployment rate can be defined as the number of people actively looking for a job as a percentage of the labor force. India presently suffers mainly from structural unemployment which exists in open and disguised forms. Unemployment being an economic evil, attracted the concern of the policy makers in the developed as well as the developing world, it is heartening to note that government in the developing economies exhibited their commitments to alleviate employment problems.

Measurement of Unemployment: Estimates from EUS are available on three different conceptual categories a follows:

(A) Usual Status (US) Approach: The usual status concept is meant to determine the usual activity status, employed, or unemployed or outside the labour force of those covered by the survey. The usual status unemployment is a person rate and indicates chronic unemployment because all those who are found usually unemployed in the reference year are counted as unemployed.

(B) Current Weekly Status (CWS) Approach: The current weekly status concept determines the activity status of a person with reference to a period of preceding seven days. A person having worked for an hour or more on any one in more days during the reference period gets the employed status. The current weekly status unemployment rate, like the usual status unemployment rate, is all so a person rate.

(C) Current Daily Status (CDS) Approach: The current daily status concept considers the activity status of person for each day of the preceding seven days. A person who works for one hour but less than four hours is considered having worked for half a day.

If he works for four hours or more during a day, he is considered as employed for the whole day. The current daily status unemployment rate is a time rate.

Voluntary unemployment arises due to reasons that are specific to an individual, while involuntary unemployment is caused by a large number of socio-economic factors such as structure of the market, level and composition of aggregate demand, government intervention. Unemployment is broadly classified in following categories. This type of unemployment may be caused due to a number of reasons. For example, one may quarrel with the employer and resign or one may have permanent source of unearned income, absentee workers, and strikers. Involuntary unemployment occurs when at a particular time the number of workers is more than the number of jobs. Obviously, this state of affairs arises because of the insufficiency or non-availability of work.

Structural Unemployment: This kind of unemployment occurs when there is any change in consumer demand and technology in the economy. When demand for labor falls short of supply of labor due to rapidly growing population and their immobility, the problem of unemployment appears in the economy. Besides, due to growing population, rate of capital formation falls down which again limits the employment opportunities, this type of structural unemployment is basically related to this category of unemployment.

Cyclical Unemployment: When there is an economy-wide decline in aggregate demand for goods and services, employment declines and unemployment correspondingly increases. Cyclical unemployment is caused by the trade or business cycles. Cyclical unemployment results from the profits and loss and fluctuations in the deficiency of effective demand production and there is a general state of depression which causes unemployment periods if cyclical unemployment is longer and it generally affects all industries to a greater or smaller extent.

Frictional Unemployment: This type of unemployment refers to a transition period of looking for a new job, for different reasons, such as seeking a better job, being fired from a current job, or having voluntarily quit a current job. The unemployment generated due to the change in market conditions is called frictional unemployment. Agriculture is the main occupation in India. The supply condition still depends on weather and similarly demand conditions depend on availability of resources. Any change arising either of any or both creates a diversion from the equilibrium which results in frictional unemployment.

Seasonal Unemployment: A type of frictional unemployment occurs in specific activities or occupations which are characterized by seasonal work. An example of seasonal unemployment is the joblessness during non-cultivation in rural areas. Seasonal unemployment occurs at certain seasons of the year. It is a widespread phenomenon of Indian villages basically associated with agriculture. Since agricultural

work depends upon Nature, therefore, in a certain period of the year there is heavy work, while in the rest, the work is lean. For example, in the sowing and harvesting period, the agriculturists may to engage themselves day and night.

Natural Rate of Unemployment: The sum total of frictional and structural unemployment is referred to as the natural rate of unemployment.

Open Unemployment: Open unemployment is to be distinguished from disguised unemployment and underemployment in that while in the case of former unemployment workers are totally idle, but in the latter two types of unemployment they appear to be working and do not seem to be away their time. When the laborer lives without any work and they don't find any work to do, they come under the category of open unemployment. Educated unemployment and unskilled labor unemployment are included in the open unemployment.

VII. CONCLUSION

Unemployment scourge is so grave and mind-boggling and it is evident that the federal government cannot achieve sustainable reductions in unemployment alone. All tiers of government including the private sector must see unemployment as a serious danger to the overall wellbeing of the country and work hard to reduce the high unemployment rate. The aim of every government should be to create enabling environment to promote investments. This includes provision of electricity, maintaining law and order, and adequate security. The justice system in the country must also be strong and reliable to facilitate strong contracts and protect mutual trust.

Employment is an important aspect for economic development. India is a conventional varied developing economy with important private sector contribution to it. The development process has brought about insignificant changes in the arrangement of the India's economy. The first important variance from the previous period relates to collective employment growth itself. Predominantly prominent is that still falling real wages in a framework of comparatively strong development in organized sector and rising labor productivity have not been sufficient to ensure growth in employment. Rising unemployment and underemployment are two crucial problems that many developing economies countenance. The problem of unemployment has serious socioeconomic implications. While at the individual level, unemployment leads to malnutrition, illness, mental stress, depression, and deterioration of human values; at the level of the economy, it implies underutilization of existing human capital.

VIII. SUGGESTIONS

Examining the various definitions of unemployment, one will conclude that unemployment can be voluntary or involuntary. A simple distinction is that voluntary unemployment is attributed to individual's decisions which include workers who reject low wage jobs or refuse to relocate to where jobs are available for him, whereas,

involuntary unemployment exists because of the socio-economic variables (such as the market structure, government policies, etc.) which permeate the environment in which he operates. This may include workers relieved of their jobs due to an economic crisis, industrial decline, company bankruptcy or organizational restructuring. Classical, structural and cyclical unemployment are largely involuntary in nature while frictional unemployment is voluntary since it reflects individual search behaviour.

Any hope of making the country safe for foreign investors must start with combating unemployment. As unemployment rate in the country drops, the human development index and living conditions of the citizenry will improve and social vices and increasing crime wave which discourage foreign investment will equally reduce.

There are ways in which government can tackle these social ills affecting the country. One of the ways is that government should invest massively in agriculture and also direct youths' interest towards this by making agricultural business exciting, creative and innovative enough to stir and spur youth interest.

Another is that government should vigorously pursue vocational and technical education to the extent that youths are able to learn and master different vocational skills and become job providers. At the end of this training, government should also provide soft loans to the trained youths as take-off capital and also encourage banks to give them loans with minimal interest rates.

Government should provide an enabling environment for industries to survive. The current situation where companies that are supposed to employ the youths are closing down or are down-sizing, is not good for the country.

Many of the youths who migrate to the urban areas in search of the elusive greener pastures end up being jobless in the cities. Eventually many of them become criminals in order to survive. For this reason, rural-urban migration should be discouraged through the provision of essential social amenities that will make life in the rural areas also attractive to the youths.

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CONCEPT OF SLAVERY IN ISLAMIC ECONOMICS: EXPLORING THE PRACTICE OF SLAVERY BEFORE AND AFTER THE ADVENT OF ISLAM**Irfan Shahid**

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INTRODUCTION

History of slavery is associated with the emergence of human civilisation. Various studies conducted on slavery show that the slavery exists since ages in almost every civilisation and religion of the world. There could be various reasons for making slave but most important reason found in biblical studies was race and tribal superiority. According to K Giles (1994) it was a tradition among Christians that Ham is the father of the black race of Africa, Shem is the father of Semites that includes the Arabs and Jews and Japheth is the father of white people. Therefore, it was an inference from the passage that the Bible is considered to have made the white races supreme and the black race their servants. However, Brain Davis (2006) concluded that the said Biblical passage became for many centuries a major justification for black slavery. The term slavery is mentioned in Ten Commandments of the Bible. There are around seventy passages in Bible where the disciples spoke directly in support of slavery. They told slaves to accept their fate and instructed their masters to treat them kindly. Many religious scholars had considered the passage for the beginning of black slavery in Africa and America. Incidences of slavery were also found in Judaism, Babylonian King, Nebuchadnezzar (I) enslaved thousands of Jews in 600 BCE and made them captive in ancient Egypt. After the downfall of Roman Empire, slavery had grown in entire Africa and Europe. It was the old history of slavery in ancient Africa and Europe. Slavery was also present in Arabia at the time of Islam but neither it was promoted nor humiliated. Islam gradually abolished the slavery system from society quietly. Slave business has made a strong base in the market. However, it reached to the USA which is the most civilised and economically a powerful country. In order to remove the slavery United States several strategies and they had to pass a bill in eighteen centuries yet they could eradicate the slavery system. Traditional slavery has been abolished but the institution of slavery still exists. More the 21 million people are surviving as a slave. Slave industry contributes billions of dollars business to various rich economies in the world. This paper aims to discuss the various aspects of slavery including beginning and end. It also discusses the role of Islam in abolishing of the slavery system.

MISUNDERSTANDING

It is misunderstood phenomenon that Islam is creator of slavery in human society. Some people who did not read history rationally they believe that Islam has invented and advocated the slavery system in the world. Many historians misquoted hadith and spread rumour that Islam started the business of slavery. History bear witness that the

business of slavery existed well before Islam. Lewis B. (1992) claims that Slavery was the culture of Sumerian, Babylonian and Egyptian and it was practised in almost in every ancient civilisation of Asia, Africa, Europe and pre-Colombian America. Slaves were bought and sold openly in the market. Therefore, all revealed scriptures of Christian and Jews have some teachings and guidelines for a slave.

MARKET FOR SLAVE

Various writings on slavery had proved the existence of slave market. Afgani (1960) discussed the significance, location and classification of Arab Markets before and after the advent of Islam. He also summarised the impact of Islam on the market in detail in Arabia. According to Sad M. I. (1997) before Islam, many markets was set up in Arabian Peninsula, among them a few were specific for slave business. Arab was the centre of trade. Traders from Africa, China, Central Asia and Europe used to gather in Arabian Market before Islam. Islam does not have control on this market. However, Islam was not present that time. When Islam came in power in the 7th century, it started reducing the practice of Slavery gradually in Arab region through various customs and tradition. Slave was considered a valuable asset and slavery was known one of the lucrative businesses. It was million-dollar worth market. Out of Arab, there were numerous markets of slave in Africa and Europe who use to get slave through following sources.

II. Source of Slavery before the advent of Islam:

- 1) Wars
- 2) Poverty
- 3) Kidnapping people on highways and Seashore.

War

When there was a war between a group, and another and one of them defeated the other, the victorious teams took the women and children of the defeated group as captives and enslave them. War was a primary source to get slaves. Muslims were not allowed to kill the defeated group. Therefore, enslave them and later on set them free. Islam asks the follower to free slave on a small issue like in one hadith Prophet said: **“Whoever slaps his slave or beats him up, the atonement is to set him free”**. (Narrated by Muslim and Ahmad)

Poverty

Often, poverty forced some people to sell their children as slaves to others. This is the reason Prophet seek refuse from Poverty and Hunger. It observed in various studies of International Labour Organisation that many people in Central Asian countries are bent on prostitution due to poverty.

Kidnapping People on Highways and Seashore

A large groups of European gangs used to go pirating on seas and kidnapping Africans whom they would then sell at European slave markets. A few documentary films made

which reveal the source of slavery in America. This kind of slavery was prevalent in Africa, mostly American and European traders were involved in this business.

Islam, as a religion of peace and morality, did not permit but only one of these causes, which was enslavement through wars, as a sign of mercy that Islam came to spread. It is in the habit of the victorious to cause maximum harm to the vanquished by killing their women and children as a gratification for their thirst for revenge. However, Islam allowed its adherents to take women and children as captives, firstly, to keep them alive and, secondly, as a preparation for making them happy and later set them free. As regards the male fighters caught who were captured, Islam allows Muslim to set them free without any ransom or to set them free with a ransom. Allah (SWT) says in the Quran:

“So, when you meet (in fight/war), those who disbelieve, smite (their) necks till when you have killed and wounded many of them, then bind a bond firmly (on them, i.e. take them as captives). Thereafter (is the time) either for generosity (i.e. free them without ransom), or ransom (according to what benefits Islam), until the war lays down its burden”. (Quran 47:4)

I. Modern Slavery

Now the concept of slavery has broadened. According to Bales, Fletcher, & Stover (2004), there are more than ten million people trapped in various forms of slavery throughout the world today. An independent agency of United Nations has estimated that 21 million are enslaved worldwide, generating one hundred sixty billion dollars each year in illicit profits for traffickers.

Labour Slavery:

Labour slavery is a kind of slavery which prevalent everywhere in the world, around 78 percent toil in forced labour slavery in industries where manual labour is required such as farming, ranching, logging, mining, fishing, and brick making.

Sex Slavery:

It is a universal phenomenon that slavery found everywhere in the world and around twenty-two, percent slave are trapped in forced prostitution and sex slavery in richest metropolitan cities of advanced countries. Recent conflicts in the middle east may increase prostitute slavery.

Child labour:

Child labour is also a part of modern slavery, Nogler & Pertile (2016) have estimated a figure through UN database on labour that twenty-six percent children are compelled to work, it is the biggest slavery. An independent agency of United Nations has estimated 20.9 million people trapped in some form of slavery today. However, the various form of slavery is categorised in following ways

Classification of Slave Market:

- Domestic Servitude
- Forced Labor
- Child Labor
- Sex Trafficking
- Bonded Labor
- Forced Marriage

Contemporary slavery is known as the Modern-Day Slavery one of the challenging issues to human civilisation. People are unknowingly blaming Islam for this. So many carnages were taken place in past by Babylonian, Jews, Romans and American which enslaved a million people. Latest incidence of enslavement was traced from British and French colonisation in the Middle-East and South Africa. They imprisoned millions of people and killed several thousand people. World War I and II was initiated by them.

Source of Modern Slavery

Nature and history of slavery are still same everywhere in the world, but it has changed the face. It became harder for people to recognise it and for those in slavery to call out for cooperation. Development in civilisation brought many changes in human life and fashion. Similarly, it has expanded the sources of slavery in modern era also. Earlier slaves were caught on the highway and during the war, but nowadays a situation is created to enslave people. Experts on Labour Economic and Slavery have classified the sources of slavery in four major sectors.

Population: A population explosion has tripled the number of people in the world, mostly in developing countries. In many places, the population has grown faster than the economy, leaving many people economically vulnerable. Fire, flood, drought or medical emergency put them in the hands of ruthless moneylenders who enslave them.

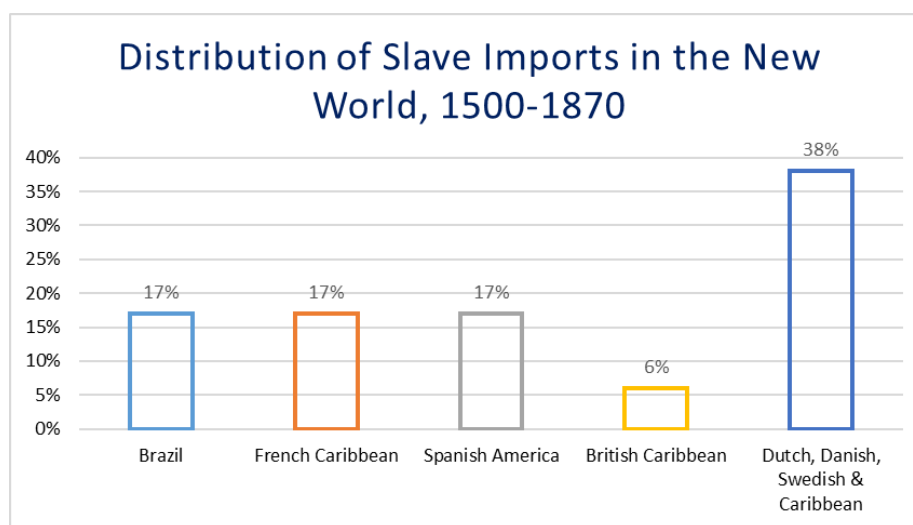
Migration: Lipton, M. (1980) believe that millions are on the move from impoverished rural areas to cities, and from poorer countries to wealthier ones, in search of work. Traffickers can trick them by posing as legitimate labour recruiters. Migrants were particularly vulnerable; they are often very far from home, don't speak the local language, have no funds to return home, and have no friends or family to rely on.

Corruption: Global government corruption often allows slavery to go unpunished. Many law enforcement officials are not even aware that bonded labour, where someone is enslaved to work off a loan, is illegal. In many places, those in slavery have no police protection from predatory traffickers.

Discrimination: Social inequality creates widespread economic and social vulnerability based on factors such as gender, race, tribe, or caste.

II. Global Slavery During 15th & 16th Century

It is a fact that slavery was not a monopoly of any particular civilisation. It was prevalent almost in every ancient civilisation of the world. Various studies conducted by ILO and independent agencies show that slavery is still existing. A graph is used to show the share of the slave population in a few countries during the 15th, 16th, 17th and 18th century. The country heavily involved in slave business and exploited millions of people for their benefit do not spend for the welfare of these people. It is a fact that slaves had played a significant role in the development of first world countries like, USA, UK, France, Brazil and Italy. Construction of buildings, roads, tube stations, industries and museums are their hard work.



Sources: <http://en.rightpedia.info/w/Slavery>

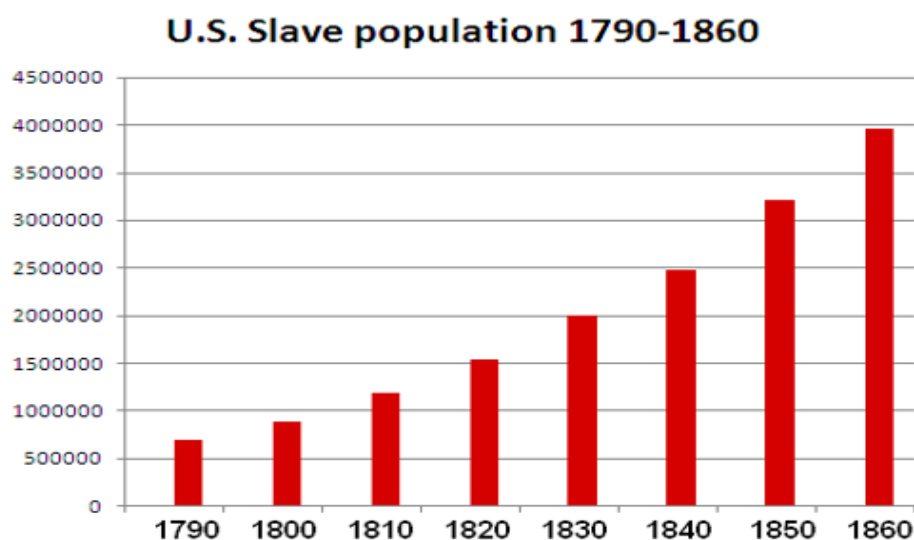
Slavery in America

Most powerful country in the world where some NGOs and organisations are working for the rights of people could not isolate from slavery system. Slavery started in America at the beginning of 16th century. It is quoted by Kolchin, P. (2003) that the first African slave brought in Jamestown, Virginia in the northern part of America. Stamp (1986) argues that the Culture of slavery in America starts from Virginia in 1619. It is recorded in studies of Tindall, & Shi (2016) that slavery existed throughout in American colonies during the 17th and 18th century. America economy was based on agriculture. The economy of Northern part of America was heavily based on farming of cotton and tobacco. The slaves brought from Africa were kept in various colonies. Northern America was engaged in agriculture of cotton and tobacco. America was the biggest exporter of cotton and tobacco in the 17th century.

In the beginning of 17th century, some European settlers induced African slaves cheaper by inviting poor Europeans to work in the cotton farm. After 1691, Dutch Business group brought millions of African slaves in America and slavery reached to every corner of America.

The invention of Cotton Gin boosted the business of cotton and increased the export of cotton reduced the value of African slave.

The Following graph shows the growth of slave population in 17 and 18 centuries.



Freedom movement for slavery started before American Civil War. Union Victory had freed four million slaves but the influence of slavery is persisting in American culture (Fogel, 1994). The movement got strengthened after Civil War. Some Media Agencies played a significant role to abolish slavery. Many articles and books were written to convince people to abolish slavery. Finally, 13th Amendment bill to US Constitution passed to abolish slavery. Though, slavery has been eradicated officially in the America but mentality to look down black people still growing in many civilized hearts of American. Before the Trump several incidences of racism have proven it. Freedom from slavery was not a gift in America, millions of blacks struggled and sacrificed their lives. However, Islam has given a lot of respect, dignity to slave in human society but still blamed cruel and uncivilised.

III. Abolition of Slavery in Islam

Many people argue why Islam did not stop the practice of slavery in their time when it was against slavery. Some people also think that when Islam spread from Arabian Peninsula to Africa and Europe, they would have had enslaved people but the reality is different, Islam did not kill or enslave civilian. They enslave only those individuals who were fighting against Islam, and they were soldiers. Secondly, Islam did not initiate any war, most of the time they were in defence. Thirdly the people were caught in the war were not killed or imprisoned to torture. Captured army person in the war was given as a slave to Muslim. It was a kind of freedom for them. Slave had to earn for their master, and they could get free after payment of a certain amount of money. Islam has given many rights to a slave. Islam does not allow looting and imprisonment of a civilian.

Prophet encouraged people to behave nicely with a slave. There is a number of hadith which motivate people to free a slave.

There was a companion of prophet whose name was Abu Dhar; he had a slave. One day he was abusing his slave while Prophet was passing through that place. When the Prophet listen, he said to Abu Dhar **“your slave is your brother and Allah has put them under your command. So, whoever has a brother under his command should feed him of what he eats and dress him of what he wears. Do not ask them (slaves) to do things beyond their capacity (power) and if you do so, then help them”** Narrated by Bukhari.

Said hadith shows the behaviour of Islam with a slave. Slavery was not a problem under the governance of Prophet and his companion. Slavery was a serious issue in Europe, Africa and America. Slaves were considered like inhuman and non-living object in many ancient civilisations while Islam has given so many rights to slave. In the words of Lewis, B. (1992) slave was treated like a brother in Islam. A famous person Zaid bin Haritha was a slave of Prophet (PBUH). He was so influenced with Prophet Muhammad. One day his parent came to know that his son is living with Prophet Muhammad (PBUH). They requested Prophet to release him. I do not have any issue, Prophet said to the parents of Zayd bin Haritha. Zayd did not get ready to go with their parents, he preferred to stay with Prophet Muhammad (PBUH). Due to this moral behaviour, a number of Slaves accepted Islam. Najibabadi (1992) wrote that the Prophet liberated Zayd bin Haritha and adopted him as a son. The love and affection were given to a slave never recorded before the advent of Islam. Bilal Habsi is one of the live examples. Arab might have misbehaved with a slave but Islam never. Prophet (PBUH) ask his companion to treat their slaves nicely. There are a number of instructions in Islam which ask Muslim to liberate the slave.

Liberating Slaves is a great virtue cited in the Quran, and it is a means for Muslims to enter Paradise. Islam only allowed the acquisition of slaves as an unfortunate consequence of war and, by contrast, provided Muslims with many incentives to free their slaves.

Allah said **“What will make you know what the difficult path to Paradise is? It is the freeing of a slave”**. (Quran 90:12,13)

Islam would have panned the practice of Slavery-like (Khmer) wine in one sitting that would bring any real change. It could be injustice with people who were in the business of slavery. Traders and people in business were not the people who enslaved the human. They were like a businessman who used to buy and sell slave like a commodity. Some tyrant people were involved in capturing people and selling in the Market. According to Sad, M. I. (1997) Zayd bin Haritha was a very young and was accompanied by his mother while she was travelling to visit her family. During journey horseman from the

QaynTribble raided their tent and kidnapped Zayd. They took him to the atUkazMarket and sold him as a slave. A famous trader of Mecca, Hakim Ibn Hizam bought him in 400 dinars and gifted this boy to his aunt Khadija bint Khuwalid who later on came in the Nikah of Prophet Muhammad (PBUH). Prophet treated him so kindly that he become the fan of Prophet. Prophet asked her cousin who was from a noble tribe in Mecca to marry with Zayd bin Haritha. Author has studied thousands of pages on this topic but did not get such example in any civilisation. Islam was not a promoter of Slavery, in fact, Islam discourages the practice of slavery. Islam would have abolished the system of slavery in one attempt, but it had embedded in the core business system. Therefore, a sudden decision to ban slavery may cause loss to the general people. Firstly, Islam cultivated the moral behaviour among followers so they should not enslave people. Secondly, Islam made a tradition to free a slave on a small mistake like on slapping slave or misbehaving with him. The Prophet (PBUH) forbade hitting the slaves. He declared **“if anyone found hitting or slapping a slave is to set him free”** Narrated by Muslim.

There is numerous example of freeing a slave in Islam. It was considered a pious act. How Islam could be a crater of the slavery system. For a moment if one accepts that Islam was the founder of slavery system, so today half world should be a slave. Islam has ruled on approximately half the world.

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FOOT NOTES

1. See 1 Corinthians 7:20-21, Eph 6:5-9, Col 3:22-25, 1 Tim 6:1-2, Tit 2:9-10
2. Refer Byron, J. (2003). *Slavery metaphors in early Judaism and Pauline Christianity* (Vol. 162). Mohr Siebeck.
3. See the Concept of Concubine and Slavery in Islam <<http://blog.darussalampublishers.com/slavery-in-islam>> accessed on 10th May, 2017
4. Refer Crane, A. (2013). *Modern slavery as a management practice*, p. 49-69.
5. Refer Patterson, O. (1982). *Slavery and social death*. Harvard University Press.
6. Refer *Slavery Today « Free the Slaves*. (n.d.). Retrieved from <http://www.Freetheslaves.net/about-slavery/slavery-today/> accessed on 10th May, 2017
7. refer al-Waqidi, Muhammad bin Umar (1966) *KitabulMaghazi*, p.129
8. Refer Ibn Sad(1912) *al-TabaqatulKabir*, Vol. II:1 Leiden: E.J. Brill, pp.11, 14.
9. Refer al-Afghani Said (1960) *Aswaq al-Arab fil jahiliyyahwa al-Islam*, p 45,46
10. Nikah is an Arabic word which means marriage
11. See al-Khui, SayyidAbulQasim (1974), *MinhajusSalihin*, 3rd ed., vol. II (Najaf) pp. 328-331

ROLE OF STRATEGIC HR MANAGEMENT AND PLANNING IN THE ORGANIZATION

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ABSTRACT

Strategic Human Resource Management was traditionally an administrative function. These days HR managers play a significant role in making certain that the organization has the right people in place to help improve business performance and assist the organization in meeting the goals and objectives. Survey analysis is properly determined in the primary qualitative methods with the 65 responses. The result findings symbolize a crucial knowledge on the HRM for the growth of measurable factors of an organization. Planning a proper organizational marketing is refers to define the appropriate HRM strategies.

Keywords: Human Resource Management, Strategic, Business Performance, HRM.

INTRODUCTION

Strategic Human Resource (HR) planning is an essential component of the Human Resource Management strategy. Most organizations follow strategic planning management techniques for the efficient functioning of HR management.

Strategic Human Resource Management and Planning provide a framework that links the developmental practices of long-term planning and the people of reorganizations. The HR of the organization focuses on the planning and strategies that initiate organizational growth evaluating future consequences. This involves analyzing the marketing situation, accessing new goals and objectives as well as planning for future growth and development of the organization. As stated by Alnamrouti *et al.* (2022), a well-functioning organization encourages employees to work efficiently maintaining all the protocols of the organization. The role of human resource strategy is to influence the working culture of the organizational environment by correcting skills as well as working resources. The HR takes the entire responsibility for aligning the job roles to their respective employees.

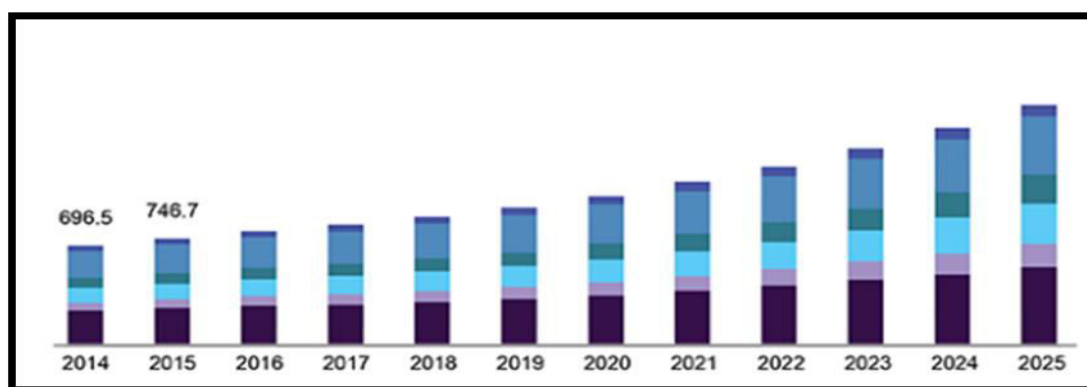


Figure 1.1: Role of Strategic HR Management and Planning in the organization

(Source: Influenced by Alnamrouti *et al.* 2022)

Figure 1 highlights the skills and competencies of the organization motivate people to stay intact with the organizational protocols leading to organizational development. As a result, this helps in ensuring the technical and psychological approaches of the business organization. As commented by Armstrong *et al.* (2020), HR management determines in adopting innovative ideas by sourcing deep technical skills to develop new approaches and strategic plans. Human resource management determines the technical skills and apprehends the art of connecting people to explain the ideas regarding the organization.

Effective communication techniques are an essential factor that shapes the structure of the organizational strategies thereby inculcating the facts inclined with the organization. As per the critical analysis by Azizi *et al.* (2021), human resources management involves the selection of the staff as per the requirement of the organization. Finding the right people and hiring them appropriately guarantees the improvement of the development of the organization. Research studies have investigated that about 20% of the workforce runs on management skills that are needed at the point of productivity. Human resource management influences the working employees to follow the professional aspects of the organization (Fenech *et al.* 2019). HR is a facilitator of the planning organized by the company management industry to initiate follow-ups by consulting the optimal prodigies. This enhances the working skills of the employees prioritizing the business accomplishments predominantly.

RESEARCH AIM AND OBJECTIVES

Aim

The aim of this research article is to determine the role of strategic planning in the development of the business organization

Objectives

The significant research objective is highlighted below,

RO1: To estimate the concept of strategic human resource planning in the development of the business organization.

RO2: To analyze the significant factors in promoting mechanisms to achieve organizational goals by expanding the scope of Strategic Human Resource Management.

RO3: To identify the relationship a relationship between human resource management and the organization's strategic plans

RO4: To maintain the authenticity of the organization through employee retention

Research Questions

RQ1: what is the main concept of strategic human resource planning in the development of the business organization?

RQ 2: What are the significant factors in promoting mechanisms to achieve organizational goals by expanding the scope of Strategic Human Resource Management?

RQ 3: What are the relationship between human resource management and the organization's strategic plans.

RQ 4: what is the ways to maintain the authenticity of the organization through employee retention?

LITERATURE REVIEW

2.1 Determining the role of strategic planning in the development of the business organization

Having strategic planning establishes new practitioner ideas and determines the progress toward the goal achievement. Making everyone aware of the company's goals and services leads to increased responsibility towards the organizational sectors. As per the critical analysis by Hamadamin *et al.* (2019), supervising technical issues evaluates the progress of the organization.

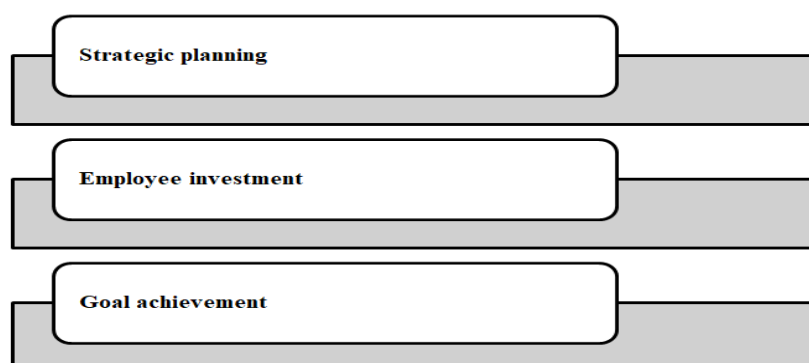


Figure 2.1: Role of strategic planning in the development of the business organization

(Source: Influenced by Hamadamin *et al.* 2019)

Strategic planning benefits the organization's mission, vision, and enthusiasm to progress in the work process. The role of strategic planning is pervasive in nature. It determines the working capacity of the employees as well as looks after the investment of the company as well (Hamid *et al.* 2022). Hence, the growth rate of organizations is influenced by the regulation of knowledge and skills developed in the corporate sectors.

2.2 Establishing a relationship between human resource management and the organization's strategic plans

Strategic planning is the process of deciphering the organizational aims and objectives for long-term goal achievement. The human resource department formulates the planning strategies by articulating the organization's vision to guide leadership qualities in the managerial sectors. As highlighted by Hamouche *et al.* (2021), the relationship between *human resource management and the organization's strategic plans* enriches with the regular practice of the resource methodologies acquired through continuous knowledge.

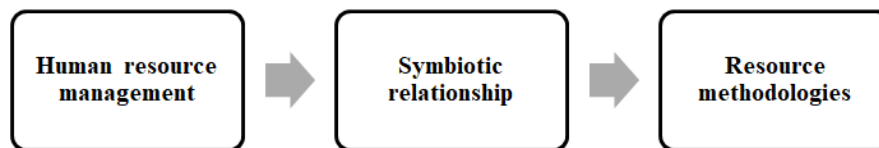


Figure 2.2: Relationship between human resource management and the organization's strategic plans

(Source: Influenced by Hamouche *et al.* 2021)

The factors share a symbiotic relationship with each other that ensures the elimination of labor malfunctioning and unethical practices. This initiates the growth of sustainability in the working sectors of organizations.

2.3 Promoting mechanisms to achieve organizational goals by expanding the scope of SHRM

Achieving organizational goals is a factor that is generated by the working patterns of the employees. For the effective functioning of the organization, creating guidelines is an important aspect. As per the critical analysis by Infante *et al.* (2022), organizations are needed to run abiding by the laws to prevent them from facing negative consequences. Prioritizing the group members and taking care of their needs and demand is an important element to achieve organizational goals.

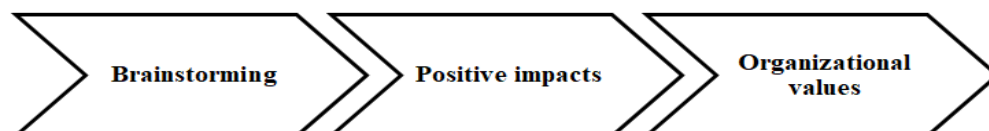


Figure 2.3: Promoting mechanisms to achieve organizational goals by expanding the scope of SHRM

(Source: Influenced by Infante *et al.* 2022)

Brainstorming is another important feature that initiates a feeling of belongingness toward each other. Moreover, strategy planning impacts the employee's working skills as it creates a single and forward-focused vision toward the objectives of the organization.

2.4 Maintaining the authenticity of the organization through employee retention

Employee retention management includes studying the psychological motives of the employees and the degree of commitment they have toward the company. The employee retention mechanism consists of strategies to keep the employees motivated and focused in the working sectors. This improves the working practices of the organization by getting accessibility to various resources. As illustrated by Malik *et al.* (2022), accessibility to resources acts as an incentive for employees encouraging them to work in a better way.

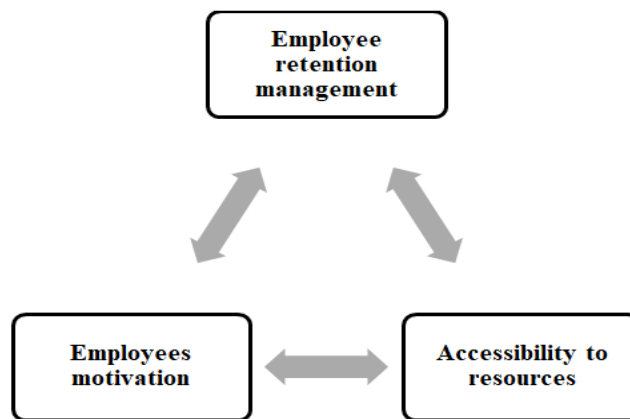


Figure 2.4: Maintaining the authenticity of the organization through employee retention

(Source: Influenced by Malik *et al.* 2022)

Determining the job security of the employees can build trust in the respective organization. In addition to that, HR determines the business strategies by conducting seminars for gaining basic ideas regarding the business prodigies thereby increasing the chances of employee retention.

METHODOLOGY

The research article analyzes the role of strategic HR Management and planning in the organizational sectors. The research is based on the *hypothesis* of the study. The research article is conducted through the *SPSS method* consisting of 65 participants. The respondents are exposed to a list of questions based on the topic of strategic management. A survey method is implemented for the data collection of the respondents (Opatha *et al.* 2023). The *primary quantitative data* collection techniques are being programmed to maintain the reliability and validity of the study. *Confidentiality* is maintained during the entire research process. The research article

aimed in evaluating the relationship of the employees with the organizational sectors in terms of working sectors as well as maintaining congenial relationship with the organizational hierarchy.

FINDINGS

4.1 Demographic data

4.1.1 Gender

What is your gender?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	28	43.1	43.1	43.1
	Male	26	40.0	40.0	83.1
	Prefer not to say	11	16.9	16.9	100.0
	Total	65	100.0	100.0	

Table 4.1: Gender

(Source: SPSS)

In the above analysis, the most number of people came from the female category with 28 of the total numbers (Ainia *et al.* 2019). On the other side, there 26 male categories of people are also respondents in this analysis. There are 11 numbers of other categories of people who are also respondents in this survey.

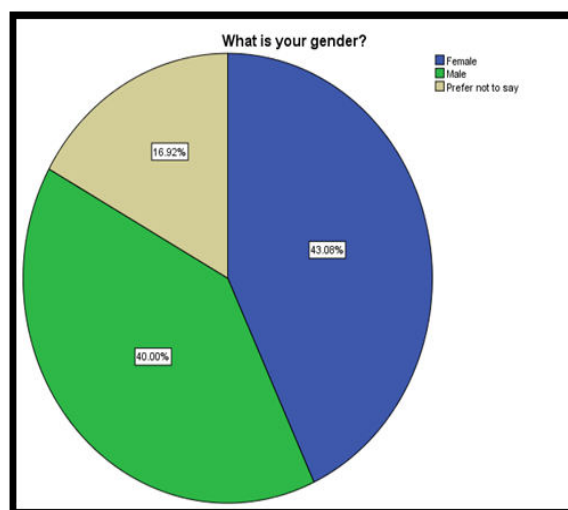


Figure 4.1: Gender

(Source: SPSS)

In this assessment, 43.09% of females category persons are respondents in this research survey (Allevi *et al.* 2019). 40.00% of the male respondent also participated in this analysis. 16.92% of other category people are also respondents in the survey paper.

4.1.2 Age group

What is your age?		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Between 20 to 25 years	3	4.6	4.6	4.6
	Between 25 to 30 years	24	36.9	36.9	41.5
	Between 35 to 40 years	29	44.6	44.6	86.2
	Between 40 to 50 years	9	13.8	13.8	100.0
	Total	65	100.0	100.0	

Table 4.2: Age group

(Source: SPSS)

From the acquired analysis of the survey, 29 numbers of people are coming from the age category of 35 to 40 years who are respondents in this analysis (Anadu *et al.* 2020). On the other side, 24 numbers of people came from the 25 to 30 years of age category for this survey analysis.

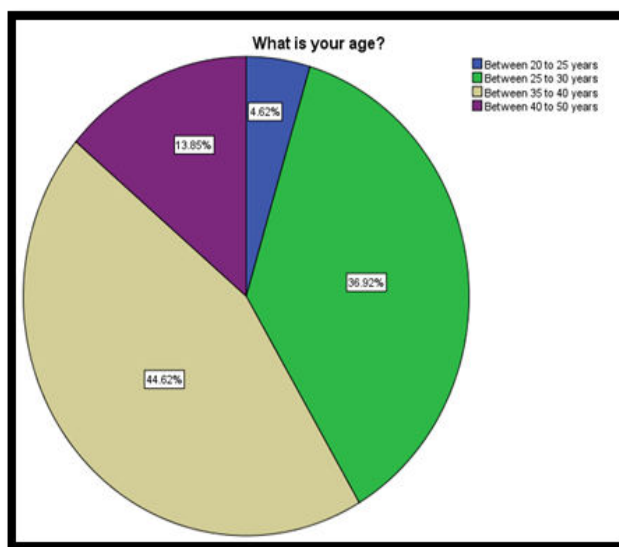


Figure 4.2: Age group

(Source: SPSS)

44.62% of people coming from the age of between 35 to 40 years are respondents in this survey paper (Ben-David *et al.* 2021). 36.92% of people between the age of 25 to 30 years are respondents in this survey paper.

4.1.3 Income level

What is your monthly income range?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Above Rs. 60000	8	12.3	12.3	12.3
	Below Rs. 25000	8	12.3	12.3	24.6
	Between Rs. 25000 to Rs. 35000	9	13.8	13.8	38.5
	Between Rs. 35000 to Rs. 45000	21	32.3	32.3	70.8
	Between Rs. 45000 to Rs. 60000	19	29.2	29.2	100.0
	Total	65	100.0	100.0	

Table 4.3: Income level

(Source: SPSS)

Between Rs. 35000 to 45000 income range of people is the frequency of 21 are respondents in this survey paper. There is 19 numbers of peoples who activated their responses who came from the Rs. 45000 to 60000 income category (Döttling *et al.* 2021).

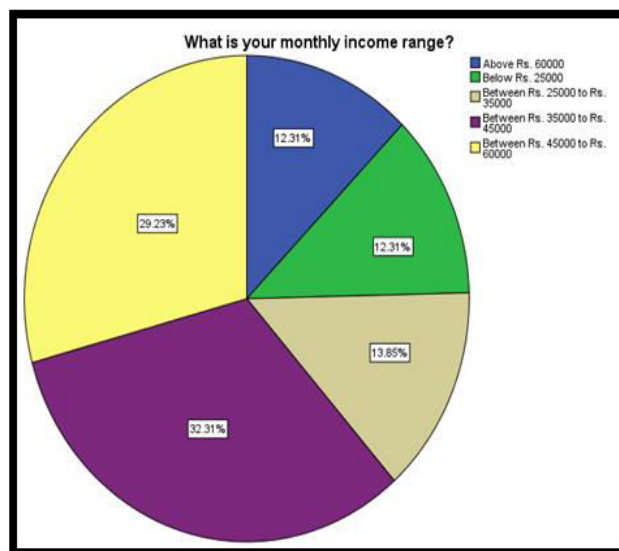


Figure 4.3: Income level

(Source: SPSS)

32.31% of people are respondents between 35000 Rs. to 45000 income category (Galagedera, 2019). 23.23% of people also came from 45000 Rs. to 60000 Rs. of the income range.

4.2 Descriptive data analysis

Descriptive Statistics												
	N	Range	Min.	Max.	Mean		SD	Varia nce	Skewness		Kurtosis	
	Stat.	Stat.	Stat.	Stat.	Stat.	Std. Error	Stat.	Stat.	Stat.	Std. Error	Stat.	Std. Error
Role of Strategic HR Management	65	4	1	5	2.02	.117	.944	.890	1.235	.297	1.897	.586
HR Management	65	4	1	5	2.17	.148	1.193	1.424	.630	.297	-.943	.586
HR policies	65	4	1	5	2.38	.133	1.071	1.147	.586	.297	-.068	.586
Employee engagement	65	4	1	5	2.15	.144	1.162	1.351	.861	.297	-.099	.586
Planning in the organization	65	8.00	2.00	10.00	5.0769	.22394	1.80544	3.260	.687	.297	.253	.586
Valid N (listwise)	65											

Table: 4.4: Descriptive data analysis
(Source: SPSS)

In the above descriptive analysis, there is a total number of respondents 65 where different IV and DV are defined appropriately (Griffith, 2019). There is a mean value of .944 in the calculation of IV and also DV value is calculated as 1.80544 in the above analysis.

4.3 Hypothesis 1: There is a relationship between HR management and planning in the organization

Regressions for HR management and planning in the organization

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.847 ^a	.652	0.514	1.81774	.002	.137	1	63	.0713

Table 4.5: Multiple regressions for HR management and planning in the organization

(Source: SPSS)

In the above analysis, there are R square value is .652 is defined as the regression value. The estimated value is defined as .81774 in the above analysis (Hilorme *et al.* 2019).

Hypothesis	Value of coefficient	Significance
HR management and planning in the organization	T value: -.370 Beta value: -.047	.713

Table 4.6: Hypothesis testing

(Source: SPSS)

There the significant value is greater than .005. There is no relation between HR management and planning in the organization. Hence, alternative hypothesis is rejected in this context.

4.4 Hypothesis 2: There is an interlink between employee engagement and planning in the organization

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.102 ^a	.010	-.005	1.165	.010	.661	1	63	.419

Table 4.7: Regressions for employee engagement and planning in the organization

(Source: SPSS)

There is R square value is defined as 0.010 based on the regression analysis. On the other side, there is 1.165 as the estimated value is properly visualized in this analysis.

Hypothesis	Value of coefficient	Significance
employee engagement and planning in the organization	T value: -.813 Beta value: -.102	.419

Table 4.8: Hypothesis testing

(Source: SPSS)

There are in the analysis the significant value is .419, which is greater than .005. As per this result, there is no connection between employee engagement and planning in the organization.

4.5 Hypothesis 3: There is a relationship between HR policies and planning in the organization

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.303 ^a	.092	.078	1.73389	.092	6.391	1	63	.014

Table 4.9: Regressions for HR policies and planning in the organization

(Source: SPSS)

R square value is defined as .092 and there is also 0.303 as the estimated value which is analyzed in this analysis (Ji *et al.* 2021).

Hypothesis	Value of coefficient	Significance
HR policies and planning in the organization	T value: -.303 Beta value: -.2528	.014

Table 4.10: Hypothesis testing

(Source: SPSS)

The hypothesis is not supported as the sig value is less than 0.05. There is a connection between HR policies and planning in the organization. Hence, it can be stated that alternative hypothesis is accepted for this analysis.

4.6 Hypothesis 4: There is an approach between role of strategic HR management and planning in the organization

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.327 ^a	.653	.519	.951	.000	.000	1	63	.985

Table 4.11: Regressions for the role of strategic HR management and planning in the organization

(Source: SPSS)

There are .653 as the R square value is defined and there are also .951 is the estimated value analyzed in the above table (Kou *et al.* 2021).

Hypothesis	Value	Significance
strategic HR management and planning in the organization	T value: -.002 Beta value: -.019	.985

Table 4.12: Hypothesis testing

(Source: SPSS)

In the above analysis, there is a significant value greater than .005. There is no relation between strategic HR management and planning in the organization. From this analysis it can be stated that, the alternative hypothesis is rejected.

DISCUSSION

In this study, there are properly discussed the role of strategic HRM in the growth of an organization. In order to evaluate of some authentic ingredients respondents in this research paper (Mirza *et al.* 2021). There are 65 respondents and SPSS analysis is defined as per the result of this survey paper. Moreover, some different independent variables and dependent variables are properly discussed in this research paper.

CONCLUSION

In conclusion, the study determines the role of strategic management techniques in the arena of organization. The study highlights a different organizational protocol that allows the employees to work efficiently. Organization posits technical advantages by inculcating business prodigies as well as maintaining congenial relationship with the organizational hierarchy. Hence, the research article provides immense accessibility to their employees

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TREND ANALYSIS OF SOCIAL SECTOR EXPENDITURE IN NORTH-EASTERN STATES OF INDIA

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INTRODUCTION

North Eastern states of India comprises of 9 states, namely, Arunachal Pradesh (AP), Assam (ASM), Manipur (MNPR), Meghalaya (MGHL), Mizoram (MZRM), Nagaland (NGLND), Tripura (TRPA) and Sikkim (SKM). The former 7 states is commonly known as “Seven Sisters” while SKM is known as the “brother” state. The North Eastern Council (NEC), constituted in 1971 is responsible for the development of NE region of India. Due to India’s Look East policy, NE states is playing a pivotal role in connecting India with ASEAN and East Asian nations (Byjus, n.d.). NE’s geographical position and cultural proximity is very important in deepening ties with the neighboring countries as NE states shares its border with Nepal, Bhutan, China, Myanmar, and Bangladesh. Besides this, NE region is richly endowed with various sources of energy, natural gas, coal, oil, limestone, and other mineral resources. Brahmaputra and its tributaries promote plantation crops, medicinal plants, horticultural products, vegetables, spices in the region. Due to its geographical significance, tourism industry will also develop. Look East policy was upgraded to Act East policy in 2014 to promote economic, strategic and cultural relation with Indo-pacific region which will boost development in NE region. Since, NE region act as a gateway to South East Asia region, the policy empowered the region as a cross border market resulting in poverty alleviation, economic empowerment and skill development. All these would benefit the region in particular and India in general (Ahmed Z., 2019).

The Prime Minister’s Development Initiative for North East Region (PM-DevINE) Scheme was announced under Union Budget 2022-23 with an total outlay of Rs. 6,600 crore for 4 years from 2022-23 to 2025-26 to fund infrastructure convergently, in the spirit of PM GatiShakti; support social development projects as per needs of the North Eastern Region (NER); enable livelihood activities for youth and women; and to fill the development gaps in various sectors to generate income and employment (PIB Delhi, 2023). Ministry of Development of North Eastern Region (DoNER) has launched various schemes to develop NE regions namely, North-East Venture Fund (NEVF) to fund various start-ups and development projects related to health, technology, tourism, media, etc.; North East Special Infrastructure Development Scheme (NESIDS) to improve infrastructure and develop power, water supply, tourism, health, education sector; Science & Technology Interventions in the North East Region (STINER) to assist women farmers and other artisans by bringing advanced technology; and North East Road Sector Development Scheme (NERSDS) under NEC to improve road infrastructure within 3 years from 2017-2020.

NE region is contributing 3% in India’s GDP despite having extreme geographical location particularly due to tourism, tea production and reserves of natural resources (GeeksforGeeks, 2022).

LITERATURE REVIEW

Various studies have focussed on the growth and development of NER. Das, R., & Das, A. K. (2011) suggested a cluster approach and its important role in economic development of NER. Ziipao, R. R. (2018) focused on the Act East policy and its impact on NER, suggesting the new national road infrastructure has unmet the needs of the local economy and thus require linkage between rural infrastructure and regional, national and international markets. Nandi, G. C. (2022) suggested an asymmetrical distribution in terms of human development accessibility

across NE. Mondal, A. (n.d.) suggested that NE states have not developed indigenously, which can be done by community inclusive developmental approach based on local market strength and available skills. Chakrabarti, A. (2017) suggested that Central assistance in different forms haven't created multiplier effect in the economy of NE. Further, decline in income from agriculture while rising population engaged in agriculture sector has led to the marginalisation of workforce. Most of NE states are net importer of food and non-food items resulting into decrease in self-sustenance and self-regeneration. Ganguly J.B. (n.d.) focussed on the impact of globalization on NE and suggested that it will upset the existing order of socio-economic and political management system. The study also suggested that NE states must remain aware of MNCs from obtaining patents of indigenous plants, herbs and extraction that has been used traditionally. Bezbaruah M.P. (n.d.) focused on the development in terms of political-administrative transformation of the region and suggested that there is mixed and uneven development in the region due to insurgency and boudh culture which reduces competitiveness and economic viability along with increase in cost to business venture. Nayak, P. (2008) suggested that Human Development Index in the NE is low along with Rural-urban disparity, gender disparity and uneven human development. Srivastav N. (n.d.) focused on poverty status and public services in NE and suggested that poverty has declined in hilly and urban areas while areas which lack in access to public services are more poverty stricken. Bhagirathi P. (n.d.) suggested a difference between economic growth and human development in NE leading to social tension. Biswambara P. (n.d.) focused on participatory developmental approach and its role in integrated development resulting into benefits to all the section of the society involved.

TREND ANALYSIS

According to table 1, trend in GSDP of each state has increased since 2008-09. Overall, NE region has experienced an increase in GSDP by 260% (3.6 times) from Rs.11017417 lakh in 2008-09 to Rs.39620473 lakh in 2019-20.

In Assam, GSDP has increased 276% from Rs.6403256 lakh in 2008-09 to Rs.24070724 lakh in 2019-20. The state has experienced GSDP (Rs., current price) CAGR of 11.29% from 2015-16 to 2021-22 and NSDP (Rs., current price) CAGR of 10.45% from 2015-16 to 2019-20 (Assam, n.d.). Various schemes include, Cess Utilisation Policy, 2015 for the welfare of small tea growers; Industrial & Investment Policy, 2014 to promote investment in Assam; Procurement Preference Policy, 2015 to promote growth and competitiveness in Micro and Small enterprises, etc; Tourism policy, 2017 to boost tourism sector; Handloom Policy, 2017 to generate employment opportunities for weavers and artisans of Assam; Biotechnology Policy 2018 to support biotech education, research, innovation and skill development; IT and Electronic Policy, 2017 to promote digital governance and attract investments in various sectors of IT industries for generating employment; Sugar Policy, 2017 to promote sugar cultivation and assist in setting up of cogeneration sugar mills (Government of Assam, n.d.). Due to Assam Ease of Doing Business Act, 2016, the Assam Bureau of Investment Promotion (ABIP) was set up to speed up the application process and issues clearance (Government of Assam, 2016). 11 integrated infrastructure development centres have been adopted by the Assam government to develop trade infrastructure. Some major initiatives includes construction of Bogibeel, a rail-cum-road bridge to improve connectivity in the eastern region of Assam and Arunachal Pradesh, adoption of the North East Industrial Investment Promotion Policy and Industrial Policy of Assam to facilitate business through fiscal incentives and multi-year concessions to investors, implementation of Export Promotion Industrial Park (EPIP) by Assam Industrial Development Corporation (AIDC) at Amingaon, near Guwahati, setting up of industrial growth centres at Balipara in the Sonitpur district and Matia in Goalpara, planning of Integrated Infrastructure Development (IID) centres at Parbatpur, Serphangguri, Dalgaon, Demow, Bhomoraguri, Malinibeel, Dahudi, Silapathar, Rangia, Banderdewa and Titabar, establishment of Border

Trade Centers (BTCs) Mankachar (Dhubri), Sutarkandi (Karimganj) and Darranga (Kamrup)(Government of Assam, n.d.-b).

In Arunachal Pradesh, GSDP has increased 317% from Rs.459583 lakh in 2008-09 to Rs.1914471lakh in 2019-20, experiencing GSDP (Rs., current price) CAGR of 6.82% from 2015-16 to 2022-23 (BE) and NSDP (Rs., current price) CAGR of 10.85% (Arunachal Pradesh, n.d.). The Arunachal Pradesh State Industrial and Investment Policy 2020 was implemented to develop MSME sectors, increase GSDP by promoting various economic activities including manufacturing and service sectors, creation of employment opportunities in rural areas, provision of quality infrastructure for environment friendly industries, provision of institutional mechanism conducive to Ease of Doing Business for business friendly environment, identifying key areas as a comparative advantage such as Food processing and Agro based industries, Bio-Technology sector, Agriculture-Horticulture processing sector, Industries based on non-timber forest produce e.g. bamboo, cane, medicinal plants / herbs, aromatic grass, tea, coffee, etc., Textiles (handlooms and power looms), Handicrafts and sericulture, Tourism (tourism infrastructure including resorts, hotels, restaurants, etc.), Adventure tourism infrastructure, Forest based tourism ventures, Creative and Entertainment Industry(Government of Arunachal Pradesh, 2019).An Industrial Growth Centre has been developed at Niglok Ngorlung, District East Siang which provide connectivity through road, rail, air, waterways as well as telecommunication along with the provision of social infrastructure such as Nationalised Commercial Bank, Post Office,Police Station,Shopping Complex,Community Recreation Centre, Hospital, etc. Industrial plots has been developed respectively for Small,Medium and Large Enterprises and also source of water and power is provided at this growth centre(Department of Industries, Government of Arunachal Pradesh, n.d.).

Manipur's GSDP has increased 220% from Rs.628659 lakh in 2008-09 to Rs.2012556 lakh in 2019-20, experiencing GSDP (Rs., current price) CAGR of 11.67% from 2015-16 to 2022-23 and NSDP(Rs., current price) CAGR of 13.6% from 2015-16 to 2019-20 (Manipur, n.d.). Most developed industries in Manipur include handloom, handicrafts and sericulture(Invest India, n.d.). Manipur Use and Procurement of Local Handloom and Handicrafts Products of Manipur policy, 2016 was announced to boost avenue of local handicrafts and handloom products (Government of Manipur. (n.d.).To boost tourism in a sustainable manner along with the provision of world standard tourism facilities with the roles of both government and private, Manipur Tourism Policy, 2014 was announced. Key thrust areas included in the policy are nature/eco, culture, medical, adventure, community tourism, etc. Manipur IT Policy, 2015 was announced leverage IT as an enabler and catalyst for the socio-economic development of Manipur. Manipur Industrial and Investment Policy, 2017 was announced for promoting sustainable growth in MSMEs sectors(Ministry of Commerce and Industry, Government of India (n.d.). Manipur Startup Scheme was launched in 2018 to provide ecosystem to support and nurture start-up entrepreneurship by creating Network of Entrepreneurship Development Centers (NEDC) in universities and higher education institutions at the initial stage (Planning Department, Government of Manipur, 2018).

Meghalaya's GSDP has increased 177% from Rs.900104 lakh in 2008-09 to Rs.2492339 lakh in 2019-20, experiencing GSDP (Rs., current price) CAGR of 7.25% from 2015-16 to 2022-23(BE) and NSDP (Rs., current price) CAGR of 5.91% from 2015-16 to 2020-21(Meghalaya, n.d.).The state is rich in natural resources coal, limestone, granite, quartz, kaolin feldspar, industrial clay and uranium. Hydroelectric power plant in Meghalaya has potential of producing approximately 3000 MW. Business opportunities in various sectors areAgriculture and Food Processing, Horticulture, Mining, Cement, Tourism, Handloom and handicrafts, electronics and IT. These sectors are also considered as an thrust areas of development(Invest India, n.d.). Various schemes include Meghalaya State water Policy, 2019 for sustainable development,

management and use of water resources in Meghalaya with community participation (Department of Water Resources, Government of Meghalaya, n.d.). Meghalaya State Policy for the Empowerment of Persons with Disabilities (MSPEPD) for the welfare of disabled people (Government of Meghalaya, n.d.). To promote sporting culture, healthy lifestyle among the society along with encouraging participation of women, Meghalaya State Sports Policy, 2019 was announced (DEPARTMENT OF SPORTS & YOUTH AFFAIRS, GOVERNMENT OF MEGHALAYA, n.d.). Meghalaya State Education Policy 2018 to provide equitable highest quality education to foster innovation, transformation and facilitate inclusive growth and development (Department of Education, Government of Meghalaya, 2018). The Meghalaya Mines And Minerals Policy, 2012 for sustainable and eco-friendly growth of mineral deposits and mineral based industries to uplift livelihood of the local people in and around the mineral bearing areas (Mining and Geology Department, Government Of Meghalaya, 2012). Meghalaya Telecom Infrastructure Policy, 2018 to provide reliable, affordable, and high quality telecommunication and Internet services along with an aim to increase telecom penetration in the villages of the state (Information Technology & Communications Department, Government of Meghalaya, 2018). Meghalaya Industrial and Investment Promotion Policy (MIIPP), 2012 was adopted 10 years with 21 objectives to encourage investment in all leading to employment generation, improvement in living standards and welfare of people of the state (Commerce and Industries department, Government of Meghalaya, 2012). Meghalaya Startup Policy, 2018 to provide conducive environment through strategic partnership and policy interventions leading to fiscal and non-fiscal benefits along with hassle-free, time bound statutory clearances and monitoring regulatory framework (Government of Meghalaya, n.d.-a). Meghalaya Tourism Policy, 2011 to make Meghalaya, a preferred tourist destination by taking advantage of its rich cultural heritage and natural beauty (Tourism Department, Government of Meghalaya, 2011).

Mizoram's GSDP has increased 304% from Rs.378137 lakh in 2008-09 to Rs.1527165 lakh in 2019-20, experiencing GSDP (Rs., current price) CAGR of 13.84% from 2015-16 to 2020-21 and NSDP (Rs., current price) CAGR of 13.35% from 2015-16 to 2019-20 (Mizoram, n.d.). More than 85% of Mizoram state is covered with forest area. Bamboo cultivation covers 51% of the state's geographical area, also having potential in the production of strawberry and palm oil cultivation (Invest India, n.d.-b). In 2016, New Economic Development Policy was launched by the chief minister of Mizoram to drive the state's economic growth, creation of employment opportunities, improvement in public finances, business environment and public service delivery through sustainable way (Planning & Programme Implementation Department, Government of Mizoram, 2016). State Vision 2030 was adopted in 2018 to achieve SDGs by strategically aligning and allocating sectoral budget. Specific projects and program activities to improve physical, mental, social and spiritual health under the National Health Mission (Health and Family Welfare Department, Government of Mizoram, n.d.). Policy on skill and entrepreneurship development in 2018 to provide vocational training and information to youth, entrepreneurs and workers in informal sectors to produce skilled workforce. Mizoram Industrial Development Policy 2012 identified various thrust sectors based on value addition of locally available resources (Labour, Employment, Skill Development and Entrepreneurship Department Government of Mizoram, 2018).

Nagaland's GSDP has increased 133% from Rs.791687 lakh in 2008-09 to Rs.1847679 lakh in 2019-20 experiencing GSDP (Rs., current price) CAGR of 10.23% from 2015-16 to 2022-23 (BE) and NSDP (Rs., current price) CAGR of 11.12% from 2015-16 to 2019-20 (Nagaland, n.d.). The state is an agrarian economy with 71% of its population dependent on agriculture. It's the 3rd highest cobalt producer in India, also possessing a capacity of 600 million MT crude oil. Hornbill festival of Nagaland foster economic opportunities due to tourism (Invest India, n.d.-c). Power Policy in 2018 was adopted to modernise the existing asset for optimum utilisation and

quality power supply, to bridge demand and availability gap, to facilitate power 24x7 for all, to adopt IT enabled services, to reduce high AT&C loss, to create infrastructure to meet industrial demand etc. (Department of Power, Government of Nagaland, 2018). Nagaland Coal Policy (First Amendment), 2014 was adopted to develop mineral based industries with an aim to encourage private investors for exploration and coal mining, to promote R&D in mineral sector, etc (Government of Nagaland, 2014). State Training Policy, 2004 was adopted to deliver public welfare through innovative approaches with an aim to promote better understanding of professional requirements, update and enhance professional knowledge and skills and to bring about the right attitudinal orientation (Government of Nagaland, 2004). IT Policy, 2004 was adopted to develop IT industry and related services through enhancement of infrastructure via PPP mode, developing human resources through widening IT education coverage in terms of spatial and quality, promotion of e-commerce and e-governance, etc. (Government of Nagaland, 2004a). Start-up Policy in 2019 to establish “Made in Nagaland” product and services by facilitating at least 500 start-ups, establishing world class state incubators to guide and support start-ups through PPP mode, to promote a culture of creativity, innovation and entrepreneurship and to create direct and indirect employment in private sector (Government of Nagaland, 2019). Tourism policy, 2001 to develop tourism industry through development of infrastructure and services supporting tourism, restructuring and strengthening the departments, effective coordination between various government departments and agencies by constituting Nagaland Tourism Council, introduction of Nagaland Registration of Tourist Trade Act etc. (Nagaland Tourism Policy, n.d.). Nagaland Bamboo Policy, 2004 to promote bamboo plantation and bamboo based industries, to promote local traditional bamboo craft & art with improved technology & design and value addition for export through industrialization, to promote awareness and understanding of bamboo as “Green Gold” among farmers, traders, industry, and other people in the state about its utility, etc. (Nagaland Bamboo Policy, n.d.).

Tripura’s GSDP has increased 217% from Rs.1202492 lakh in 2008-09 to Rs.3806335 lakh in 2019-20, experiencing GSDP (Rs., current price) CAGR of 10.38% and NSDP (Rs., current price) CAGR of 10.15% from 2015-16 to 2020-21 (Tripura, n.d.). The state is an agrarian economy with rice as a major crop. Horticulture /plantation crop has potentials due to climate suitability. Along with this, potato yield per hectare is highest among NER. The state has surplus production of certified HYV paddy and mustard seeds. Besides this, it is the 5th largest tea producing state in India. It also contains natural gas in non-toxic form. The state has established rubber, food and bamboo parks to attract investment. The State has 5 Industrial Estates, 6 Industrial area, 14 Public Sector Undertakings, 2 growth centres, and an Export Promotion Industrial Park (Invest India, n.d.-d). To ease the process of application submission for claims by enterprises, the procedure has been simplified and rationalised by submission of minimum essential information or documents under Tripura Industrial Investment Promotion Incentives Scheme, 2017 which was revised to Tripura Industrial Investment Promotion Incentive (Amendment) Scheme, 2017 (Government of Tripura, 2019).

Sikkim’s GSDP has increased 669% from Rs.253499 lakh in 2008-09 to Rs.1949204 lakh in 2019-20, experiencing GSDP (Rs., current price) CAGR of 12.66% from 2015-16 to 2019-20 and NSDP (Rs., current price) CAGR of 12.66% from 2015-16 to 2019-20 (Sikkim, n.d.-b). The state has highest per capita income among NER and is the first state to adopt organic farming in 2003 and is also the world’s first 100% organic state. It is the top producer and exporter of large cardamom in India. Agro and food processing; hydropower; tourism and pharmaceuticals are key sectors of the state. Potential in hydropower is estimated to be around 8000 MW out of which 29 hydropower plants have been approved which have capacity of 5350 MW. The Ministry of Tourism, Government of India has awarded Gangtok with “Safest tourist destination in the country” and has been ranked 17th in New York times “52 best places to go in 2017”.

Tourism mission, 2015 was launched to promote tourism and create employment opportunities to 75000 people. Policies such as ease of doing business, tax incentives, low cost of manufacturing and labour have made the state suitable for investment in pharmaceuticals(Sikkim, n.d.). Eco-tourism policy, 2011 was launched to develop better understanding of ecotourism, conservation of the existing bio-diversity, empowerment of local livelihoods, and promotion of ecotourism in a sustainable manner as per Global Sustainable Tourism Criteria (GSTC)(Government Of Sikkim, 2011).State Tourism Policy, 2018 to boost tourism sector (Government of Sikkim, n.d.).Information Technology, Electronics And Telecommunication Policy, 2020 aimed to promote IT/ITeS Electronics and Telecommunication industry in the state. This policy also aims to imbibe IT in socio-economic development along with skilling youth through ICT tools and promotion of digital learning, encouraging startups, especially women entrepreneurs, and to use IT in various other economic activities (Government of Sikkim, n.d.).

Social Sector Expenditure (SSE) as per table 2, indicate an upward trend for NE. Overall, NE has experienced an increase in SSE by 356% (4.6 times) from Rs.15478 crore in 2008-09 to Rs.70566.7 crore in 2019-20. Various schemes have been launched to improve social sector by centre and state government. Central government schemes such as National Rural Health Mission (NRHM), Swachh Bharat Mission, MGNREGA, National AIDS and STD Control Programme, National AYUSH Mission (NAM), Integrated Child Development Services (ICDS), Beti Bachao Beti Padhao, National Service Scheme, National Programme for Youth and Adolescent Development (NPYAD), Special Central Assistance to Scheduled Castes SubPlan, Weather-based Crop Insurance Scheme, Indira Awaas Yojana, etc. are applicable to all NE states while state schemes are as per their respective needs.

In Assam, SSE has increased 448% from Rs.6759.9 crore in 2008-09 to Rs.37050.6 crore in 2019-20. Various schemes are Chief Minister's Start-up fund "Saroithi" (Industries, Commerce and Public Enterprises, n.d.).The Assam Abhinandan Education Loan Subsidy Scheme, 2019(Finance, n.d.);Aponar Apon Ghar Home Loan Subsidy Scheme, 2020.The scheme is an extension of Apon Ghar Home Loan Subsidy Scheme 2016-17(Finance, n.d.-a); Swanirbhar Naari-Atmanirbhar Asom Scheme 2020 to uplift economically weaker women by providing them employment opportunities under MGNREGA along with the convergence of various scheme such as Assam State Rural Livelihood Mission, Agriculture & Horticulture, Fishery, Environment & Forest, Handloom and Textiles, Sericulture, Veterinary, and Animal Husbandry, etc.(Panchayat & Rural Development, n.d.). The Atal Amrit Abhiyan Health Insurance scheme, 2016 (Health & Family Welfare, n.d.).Arundhati Gold Scheme, 2019-20(Revenue & Disaster Management, n.d.); The Assam Tractor Scheme, under Chief Minister Samagra Gramya Unnayan Yojna (CMSGUY) (Assam Tractor Scheme Under CMSGUY, n.d.); Kushal Konwar Briddha Pension Scheme(Panchayat & Rural Development, n.d.-a);Swami Vivekananda Assam Youth Empowerment Scheme(SVAYEM), 2017. Under SVAYEM scheme 2020, provision of Rs.50,000 each to 2 lakh youth to encourage entrepreneurship(Finance, n.d.-c); The Assam Orunodoi Scheme, 2020 (Finance, n.d.-c).

In Arunachal Pradesh, SSE has increased 344% from Rs.1279.6 crore in 2008-09 to Rs.5678.3 crore in 2019-20.Various scheme launched for women and girls include Pradhan Mantri Ujjwala Yojana; Beti Bachao, Beti padhao, CM Vidya;The Girl Hygiene scheme; Dulari Kanya Yojana.Under Sansad Gram Yojana, Samanvay, a compilation of various central sector, centrally sponsored and state schemes are converged. As per Samanvay, for personal development, 7 schemes (6 central, 1 state); for human development, 68 schemes (58 central, 10 state); for Social Development, 36 central scheme ; for Economic Development, 92 schemes (87 central, 5state); for Basic Amenities and Services, 24 scheme (23 central, 1 state); for Social Security, 10 schemes (9 central , 1 state) have been implemented. Personal development state

sponsored scheme include Chief Minister's Youth Development Scheme. Human development state sponsored schemes include Navajyoti and IMR mission; Relief & Rehabilitation of Persons With Disabilities programme, Assistance to Arunachal Pradesh State Social Welfare Board, Children in Need of Care and Protection, State Commission for Women, Construction of Juvenile Home, Construction / Maintenance of Working Women Hostels, Construction of Girls / Boys Hostels to focus on special needs of Persons With Disability (PWD), especially children and women; Chief Minister's Talent Award. State sponsored economic development scheme include Horticulture Garden Scheme Assistance; Rural Building Center and Chief Minister's Transport Subsidy Scheme for skill development for youth; Living Heritage scheme and Development of Rural Tourism for promoting village tourism including eco-tourism. State sponsored scheme for basic amenities and services include Hydro Power Development from Prime Minister's Package. State sponsored social security include Old Age Pension (Ministry of Rural development, Government of India & National Institute of Rural Development and Panchayati Raj, n.d.).

SSE in Manipur has increased 220% from Rs.1448.1 crore in 2008-09 to Rs.4634.4 crore in 2019-20. A total of 291 schemes (223 central, 68 state) have been implemented in Manipur of which, 264 schemes (219 central, 45 state) are devoted to social sector. For personal development, there are 6 central schemes. For human development, there are 64 schemes (58 centre, 6 state), where state sponsored scheme include National Health Mission; Integrated Child Development Services (ICDS) for Nutrition along with SABLA and Saksham Schemes; Sarv Shiksha Abhiyan; Schemes for Implementation of Persons with Disability Act, 1995; Scheme for Providing Education to Madarsaas/ Minorities. For Social development, there are 41 schemes (36 centre, 5 state) where state sponsored schemes include National Commission for SCs/ STs. For Economic development, there are 95 schemes (87 centre, 8 state), where state sponsored schemes include North Eastern Council Fund for Resource Mobilisation Scheme; Fish Fair cum Fish Crop Competition; Promotion of Fisheries; State Share to NEC Programme for Horticulture Development Activities; Artisan Support Initiatives; Economic Development Programme; North Eastern Council Fund for Tourism Development; Construction of Hostel for Boys and Girls and North Eastern Council Fund for Resource Mobilisation Scheme for uplifting people above poverty line. There are 39 schemes (23 centre, 16 state) for providing basic amenities and services where state sponsored schemes include Indira Awaas Yojana and Special Central Assistance to Tribal Sub-Plan; State Total Drinking Water Programme; Backward Regions Grant Fund/ Mahatma Gandhi National Rural Employment Guarantee Scheme and Pradhan Mantri Gram Sadak Yojana; Grid-Interactive and Distributed Renewable Power programme, Strengthening of Transmission System in the State of Manipur, Integrated Power Development Scheme, Multi-Sectoral Development Programme, Renewable Energy for Rural Applications for electrification to all household and street lights; Assistance for Schemes under Provison(i) to Article 275(1) of the Constitution, Border Area Development Programme (BADP); Backward Regions Grant Fund for construction and maintenance of all the different civic infrastructure including grameen haat; Public Distribution System to meet the consumption needs of the poor; Banking Services by providing micro-mini banks /post offices/ATMs and opening of bank accounts; BSNL provide broadband connectivity and Common Service Centres. For social security, there are 19 schemes (9 centre, 10 state), where state sponsored schemes include Assistance to Voluntary Organisations for Old Age Homes, Pension and Other Benefits for Freedom Fighters, Swavalamban Scheme - National Pension Scheme for unorganised sector, National Social Assistance Programme, Labour Welfare Schemes, promotion of Khadi industries, Aam Aadmi Bima Yojana - Social Security Fund and Scholarship Fund, Accident Insurance Cover (Ministry of Rural Development, Government of India & National Institute of Rural Development and Panchayati Raj, n.d.).

SSE in Meghalaya has increased 300% from Rs.1225 crore in 2008-09 to Rs.4897.5 crore in 2019-20. 284 schemes (223 centre, 61 state) have been implemented in Meghalaya of which, 284 schemes (219 centre, 56 state) are devoted to social development while others are meant for environment development and good governance. For personal development, there are 6 central schemes. For human development, there are 60 schemes (58 centre, 2 state) where state schemes include Megha Health Insurance Scheme (MHIS); Agriculture academic studies scheme. For social development, there are 39 schemes (36 centre, 3 state) where state schemes include Intensive Arts and Culture Development Programme; District Sports Promotion Society Programme; Chief Minister's Scheme for Social Assistance to the infirm, Widows and Disabled, 2012. For economic development, there are 133 schemes (87 centre, 46 state) where state schemes include establishing Farmers' Training Institute, State Rice Mission, Tea Development, Tuber Crops Development - Potato, Tapioca, Colocasia, Vegetable Development Scheme, Vegetable Garden Development Scheme, Organic Manure, Plant Protection including IPM, setting up of Agriculture Information Unit, Floriculture Development Scheme, Winter Cropping and Development of Cultivable Land, Development of Strawberry Cultivation, establishment of Fruit Processing Centre (Horti), Maize Development through cluster approach, Plantation Development (Areca nut, Cashew nut, Coconut), Fruit Development (Temperate or Citrus Fruits), Organic Manures including Vermicompost and Compost Pit (Horti), Seed Farms, setting up of Soil Testing and Bio-Control Laboratory, State Soil Survey, Horticulture Information Scheme, Scheme for Self-Help Group/ Cooperative Society, Rural Cluster Approach for Poultry and Piggery Development, Educated Unemployed Youth Scheme, General Scheme to provide financial assistance for inputs in kind-cattle, goat, poultry, equipment and feed to a genuine livestock or poultry farmer, IBDLP- Entrepreneurship Promotion, Pine Needles Briquetting Project, Meghalaya Coconut- Cocoa and Spices Development Project (MCC&SDP), Meghalaya State Aquaculture Mission, IBDLP- Apiculture Mission, The State Rural Infrastructure Development Initiative (SRIDI), Agriculture Engineering (Mechanical and Workshop), Industrial Infrastructure Upgradation Scheme (IIUS), Departmental Manpower Training Schemes, Training Inside and Outside the State, Master Craftsman scheme, Career Guidance and Counselling Programme, IBDLP-Knowledge Management, Chief Minister's Youth Development Scheme, State Plan Project Placement Linked Skill Training Programme, Training Centre for Self-Employment for Women, Chief Minister's Rural Development Fund (CMSRDF), Meghalaya Tourism Development and Investment Promotion Scheme. For Basic amenities and services, there are 27 schemes (23 centre, 4 state) where state sponsored schemes include State Sector Rural Water Supply Scheme, Special Rural Works Programme (SRWP), Black Topping of Rural Road Scheme (BTRRS), Construction of Rural Roads Programme (CRRP). For social security, there are 10 schemes (9 centre, 1 state), where state scheme include Chief Minister Scheme on Wedding Assistance for Orphaned Girl (Ministry of Rural Development, Government of India & National Institute of Rural Development and Panchayat Raj, n.d.).

In Mizoram, SSE has increased 290% from Rs.1150.8 crore in 2008-09 to Rs.4493.4 crore in 2019-20. There are 266 schemes (223 centre, 43 state) implemented in Mizoram, of which 261 (219 centre, 42 state) schemes are meant for social sector development. For personal development, there are 14 schemes (6 centre, 8 state) where state sponsored schemes include Health & Hygiene Awareness, Sanitation Programmes, School Children Hygiene Practices, Development of Sports & Youth Activities, Support of NER Educational Council Chairman's Sports Award for Excellence in International & National, Sports Meet by Sportsmen/Sports Women of NER, Control of Tobacco Products Act (COTPA), Mizoram Liquor Prohibition and Control Act, 2014. For human development, there are 70 schemes (58 centre, 12 state) where state sponsored schemes include Support for Development/ Creation of Infrastructure/ Equipment for Health centres in the NER and Equipment for Medical, Para Medical & Allied

Health Institutes; Pulse Polio Immunisation, BCG Vaccines, Other Vaccines at PHC and PHSC programmes; Home Visit by Health Workers and ASHA, Mobile Health Care and Ambulance for 100% institutional delivery; Support for Teachers Training Institute Through IGNOU, Financial Support to Employment Oriented Courses in the ITI of the NER, Infrastructure Development for Educational Institute to introduce latest technology and promote self-employment oriented skill training. For social development, there are 39 schemes (36 centre, 3 state) where state schemes include setting up of Gram Sabha institution and Social Audit scheme; Supporting a CBO Called Mizo Upa Pawl, Ex-servicemen Association, etc. For economic development, there are 106 schemes (87 centre, 19 state) where state sponsored schemes include New Land Use Policy (NLUP), Agriculture Development in the NE States Including Diversification of Agronomical Crops, Establishment of Cold Storage Unit in NER, Diversification of Agronomical Crops, Marketing Support to Agri-Horti Produces in NER, Development/ Rejuvenation of Plantation/Citrus Crops in NER, Support for Extension, Innovation & Awareness Through Research Organisation & Training, Pilot Project for Development of Horticulture & Floriculture Crops; Horticulture Farm and Seed Production (Field Contingencies for Raising of Seedlings, etc and Normal Maintenance of Farms); Integrated Fisheries Development Project in the NER; Integrated Animal Husbandry Project (including production of milk, meat, etc., and construction of slaughter house); New Industrial Policy 2002, Support for Promotion of Industrialisation, NIDO-CBTC Project & BTP, Support to LEP Initiatives, setting of SEZ/Food Park/BTP, etc, Support to plastic parks, Promotion/Support to Project related with tourism in NER, Assistance for Capacity Building Programme in the tourism sector. For Basic amenities and services, there are 23 central schemes. For social securities, there are 9 central schemes (Ministry of Rural Development, Government of India & National Institute of Rural Development and Panchayati Raj, n.d.-b).

SSE in Nagaland has increased 294% from Rs.1118.7 crore in 2008-09 to Rs.4405.1 crore in 2019-20. There are 231 schemes (223 centre, 8 state) implemented in Nagaland of which, 227 schemes (219 centre, 8 state) are meant for social sector development. For personal development, human development, social development, basic amenities and services, there are no state sponsored schemes. For economic development, there are 92 schemes (87 centre, 5 state) where state sponsored schemes include Nagaland Bee and Honey Mission, Nagaland Handloom and Handicraft Development Corporation Ltd.; Grant in Aid to Village Development Boards (VDB), Fixed Deposit and Matching Cash Grant, Nagaland Bamboo Development Agency for rural industrialization. For social security, there are 12 schemes (9 centre, 3 state) where state schemes include Welfare of the Aged scheme; Welfare Programme for Persons With Disability; Nagaland Building and Other Construction Workers Welfare Board (NBOCWVB) (Ministry of Rural Development, Government of India & National Institute of Rural Development and Panchayati Raj, n.d.-c).

SSE in Tripura has increased 298% from Rs.1679.9 crore in 2008-09 to Rs.6687.4 crore in 2019-20. There are 243 schemes (223 centre, 20 state) of which, 237 schemes (219 centre, 18 state) are devoted to social sector development. For personal development, there are 6 central. For human development, there are 59 schemes (58 central, 1 state) where state sponsored scheme include Aids and Appliances for the Handicapped scheme for special attention to Person with Disability (PwD), especially women and children. For social development, there are 38 schemes (36 centre, 2 state) where state sponsored schemes include Tripura Rural Livelihood Mission, Tripura Commission for Women. For economic development, there are 98 schemes (87 centre, 11 state) where state sponsored schemes include Livelihoods of rural poor people through Bamboo Value Addition, development of producer organisations or clusters, Village Entrepreneurship Start-up Programme, Promoting innovations in individuals, Start-ups and MSMEs (PRISM), Building Industrial R&D and Common Research Facilities (BIRD) for rural industrialisation; Mission for Integrated Development of Horticulture (MIDH; USTTAD

(Upgrading the Skills and Training in Traditional Arts/Crafts for Development); Hostels for Working women, Deendayal Disabled Rehabilitation Scheme, Tripura Rural Livelihood Mission, Livelihoods of women through SHGs. For basic amenities and services, there are 26 schemes (23 centre, 3 state) where state schemes include Tripura State Government Housing Scheme, Bidhayak Elaka Unnayan Prakalpa (BEUP), Border Area Development Programme (BADP). For social security there are 10 schemes (9 centre, 1 state) where state scheme include Pension Schemes of the Tripura State (Ministry of Rural Development, Government of India & National Institute of Rural Development and Panchayati Raj, n.d.).

In Sikkim, SSE has increased 233% from Rs.816 crore in 2008-09 to Rs.2720 crore in 2019-20. There are 227 schemes (223 centre, 4 state) out of which, 194 schemes (190 centre, 4 state) are devoted to social sector development. State sponsored scheme is in few sectors such as human development (1), economic development (2) and basic amenities and services (1). For personal development, there are 6 central schemes. For human development, there are 58 central schemes and 1 state scheme which include Total Literacy Mission. For social development, there are 36 central schemes. For economic development, there are 88 central schemes and 2 state schemes which include Sikkim Organic Mission, Integrated Pest Management Programme. For basic amenities and services, there are 24 schemes (23 central, 1 state). There are 9 central schemes for social security (Ministry of Rural Development, Government of India & National Institute of Rural Development and Panchayati Raj, n.d.-d).

It can be observed that NE states have experienced economic growth (GSDP and NSDP) and development (SSE) over the period of time. However, economic development in NE state is more as compared to their growth performance. SSE in NE states has increased by 356% (4.6 times) while GSDP (constant price) has increased by 260% (3.6 times).

However, according to Table 3, overall SSE/GSDP(%) has declined by 6.66% over a given time period, implying that even though SSE has increased, its contribution to economic growth has decreased. State wise contribution of SSE in GSDP is Assam (24.72%), Arunachal Pradesh (23.17%), Manipur (-9.88), Meghalaya (16.53), Mizoram (-29.25), Nagaland (18.25), Tripura (-5.51) and Sikkim (-33.83%) implying that Assam is best performer while Sikkim is the worst performer state in terms of contribution of SSE in GSDP.

However, SSE (% of total expenditure) (Table 4) indicate an upward trend in NER increasing at 17.64% during 2008-2020 but at a decreasing rate with Assam being the best performer in NER.

Table 5 indicate trend in expenditure on education incurred by NE states. Overall, expenditure on education by NE states has increased at approximately 19% during 2008-20 but at a decreasing rate while all state-wise analysis indicate cyclical trend along with the exception of Arunachal Pradesh and Sikkim having a cyclical but positive trend over a period of time.

Table 6 indicate expenditure on Medical and Public Health and Family Welfare by NE states. Overall, expenditure incurred on medical and public health and family welfare by NE region have increased by 36.36 % during 2008-20 but at decreasing rate experiencing cyclical fluctuations over a given time period.

Table 1: Trend in GSDP (Constant price)(in Lakh)

Years	Assam	AP	Manipur	Meghalaya	Mizoram	Nagaland	Tripura	Sikkim	NE States
2008-09	6403256	459583	628659	900104	378137	791687	1202492	253499	11017417
2009-10	6979387	502948	671986	959122	424896	846258	1330590	440101	12155288
2010-11	7344442	522041	668061	1041308	497932	925399	1438667	478428	12916278
2011-12	14317491	1106269	1291460	1991774	725869	1217674	1920841	1116510	23687888
2012-13	14734238	1129924	1299281	2035357	777797	1286790	2087297	1142121	24492805
2013-14	15452540	1233942	1411509	2072571	903842	1379259	2281911	1211405	25946979
2014-15	16521230	1438265	1524490	2014033	1126104	1439877	2696521	1307097	28067617
2015-16	19110900	1424046	1642368	2063842	1232359	1466049	2678690	1436950	31055204
2016-17	20208084	1489371	1708192	2173023	1359521	1564992	3053759	1539727	33096669
2017-18	21991937	1557336	1875074	2256433	1475778	1643983	3309278	1767336	35877155
2018-19	23103957	1666978	1826222	2371885	1610037	1686771	3675396	1862497	37803743
2019-20	24070724	1914471	2012556	2492339	1527165	1847679	3806335	1949204	39620473
TRENDS									

Source: RBI, <https://rbi.org.in/Scripts/PublicationsView.aspx?id=21415>

Table 2: Trend in Social Sector Expenditure (SSE) (in Crore)

Years	Assam	AP	Manipur	Meghalaya	Mizoram	Nagaland	Tripura	Sikkim	NE States
2008-09	6759.9	1279.6	1448.1	1225	1150.8	1118.7	1679.9	816	15478
2009-10	9159.5	1766.9	1535.2	1402.4	1465.3	1168.7	2182.6	1010	19690.6
2010-11	10242.9	1567.5	1933.5	1751.8	1596.2	1578.9	2157.4	1063	21891.2
2011-12	11189.2	2158	2017.7	2341.8	1640.5	1606.3	2686.6	1450	25090.1
2012-13	12303.2	1938.5	2051.1	2308.8	2118.4	1969	2873.1	1391	26953.1
2013-14	14507.5	2553.6	2107	2715.5	2298.3	2150.1	3254.3	1691	31277.3
2014-15	20396.9	3055.4	3128.5	3301.9	2901.8	2503.9	5076.9	1773	42138.3
2015-16	20218.2	3357.6	3071.9	3236.7	2891	2725.2	5690.2	1604	42794.8
2016-17	26362.6	4148.4	3301.8	4895.3	3077.4	3582.6	5951.1	1838	53157.2
2017-18	27844.5	5475.9	4298.2	4575.3	3814.1	4479.7	5867.6	2274	58629.3
2018-19	30244.9	6372.4	4468.2	5242.1	4063.5	4172.1	6373.6	2601	63537.8
2019-20	37050.6	5678.3	4634.4	4897.5	4493.4	4405.1	6687.4	2720	70566.7
TRENDS									

Source: RBI, <https://rbi.org.in/Scripts/PublicationsView.aspx?id=21554>

Table3: Trend in SSE/GSDP (%)

Years	Assam	AP	Manipur	Meghalaya	Mizoram	Nagaland	Tripura	Sikkim	NE States
2012-13	8.9	16.4	16.2	12.1	25.3	12.6	12.7	13.3	15
	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
2013-14	9.1	18.9	14.7	12.4	22.3	12.1	12.1	13.7	14
	(2)	(15)	(-9)	(2)	(-12)	(-4)	(-5)	(3)	(-2)
2014-15	10.3	18.2	17.3	13.5	25.1	13.6	17.1	11.7	16
	(13)	(-4)	(18)	(9)	(13)	(12)	(41)	(-15)	(10)
2015-16	8.9	16.4	16	12.5	18.8	13.8	16.6	9.5	14
	(-14)	(-10)	(-8)	(-7)	(-25)	(1)	(-3)	(-19)	(-11)
2016-17 (RE)	14.9	19.1	21.7	15.2	19.1	18.8	18.7	12.6	18
	(67)	(16)	(36)	(22)	(2)	(36)	(13)	(33)	(25)
2017-18	9.7	24.8	17.8	15.3	21.5	19	12.7	9.7	16
	(-35)	(30)	(-18)	(1)	(13)	(1)	(-32)	(-23)	(-7)
2018-19	9.6	25.9	16	15.7	20.8	15.3	12.8	9.1	16
	(-1)	(4)	(-10)	(3)	(-3)	(-19)	(1)	(-6)	(-4)
2019-20	11.1	20.2	14.6	14.1	17.9	14.9	12	8.8	14
	(16)	(-22)	(-9)	(-10)	(-14)	(-3)	(-6)	(-3)	(-9)
Trend									
Trend (Growth Rate)									

Source: RBI state finance data.

- Note: 1. Data in parenthesis indicate % change in SSE/GSDP(%) from the previous period.
 2. Trend (Growth Rate) indicate trends in % change in SSE/GSDP(%) from the previous period.
 3. Data in NE States is calculated as an average of all states of NE region.

Table 4: Trend in SSE to Total Expenditure(%)

Years	Assam	AP	Manipur	Meghalaya	Mizoram	Nagaland	Tripura	Sikkim	NE States
2008-09	38.7 (-)	29.9 (-)	32.9 (-)	35.7 (-)	40.1 (-)	28.3 (-)	37.2 (-)	27.4 (-)	34 (-)
2009-10	36.7 (-5)	33.7 (13)	32.5 (-1)	36.6 (3)	41.5 (3)	25.9 (-8)	37.9 (2)	28.8 (5)	34 (1)
2010-11	39.5 (8)	28.1 (-17)	31.6 (-3)	36.7 (0)	38.6 (-7)	28.3 (9)	38.4 (1)	30.9 (7)	34 (-1)
2011-12	37 (-6)	32.4 (15)	29.4 (-7)	39.4 (7)	36.6 (-5)	24.9 (-12)	41.7 (9)	36.8 (19)	35 (2)
2012-13	36.5 (-1)	30.5 (-6)	29.3 (0)	37.7 (-4)	39.7 (8)	27.4 (10)	40.9 (-2)	35.4 (-4)	35 (0)
2013-14	39 (7)	32.8 (8)	29.4 (0)	39.9 (6)	40.8 (3)	29.8 (9)	41.6 (2)	37.8 (7)	36 (5)
2014-15	45.1 (16)	34.6 (5)	35.3 (20)	43.3 (9)	43.3 (6)	31 (4)	47.9 (15)	36.7 (-3)	40 (9)
2015-16	48.2 (7)	27.8 (-20)	33.9 (-4)	40.7 (-6)	44 (2)	29.8 (-4)	49.4 (3)	35.6 (-3)	39 (-2)
2016-17	45.9 (-5)	34.1 (23)	33.2 (-2)	48.6 (19)	41.1 (-7)	34.9 (17)	47.3 (-4)	38.5 (8)	40 (5)
2017-18	42.6 (-7)	37.2 (9)	38.7 (17)	46.9 (-3)	41.6 (1)	37.3 (7)	47.2 (0)	37.8 (-2)	41 (2)
2018-19	42.1 (-1)	34.1 (-8)	37.4 (-3)	43.1 (-8)	42.1 (1)	31.7 (-15)	46 (-3)	37.5 (-1)	39 (-5)
2019-20	44.9 (7)	34.6 (1)	38.4 (3)	44.7 (4)	40.2 (-5)	32.4 (2)	44.7 (-3)	37.1 (-1)	40 (1)
Trend									
Trend (Growth Rate)									

Source: RBI, <https://www.rbi.org.in/Scripts/PublicationsView.aspx?id=21684>

- Note: 1. Data in parenthesis indicate % change in SSE to Total Expenditure (%) from the previous period.
 2. Trend (Growth Rate) indicate trends in % change in SSE to Total Expenditure (%) from the previous period.
 3. Data in NE States is calculated as an average of all states of NE region.

Table 5: Trend in Expenditure on Education (% of Aggregate Expenditure)

Years	Assam	AP	Manipur	Meghalaya	Mizoram	Nagaland	Tripura	Sikkim	NE States
2008-09	18.8 (-)	11.4 (-)	12 (-)	12.8 (-)	14.1 (-)	11.2 (-)	14.4 (-)	10.6 (-)	13.2 (-)
2009-10	16.4 (-13)	12.2 (7)	11.9 (-1)	14.8 (16)	14.9 (6)	11.3 (1)	16.2 (13)	12.4 (17)	13.8 (5)
2010-11	22 (34)	10.8 (-11)	10.7 (-10)	16.1 (9)	14.9 (0)	13.4 (19)	17.2 (6)	17.3 (40)	15.3 (11)
2011-12	20.3 (-8)	11.4 (6)	10.6 (-1)	17.3 (7)	15.7 (5)	12.1 (-10)	17 (-1)	14 (-19)	14.8 (-3)
2012-13	20.6 (1)	12.2 (7)	11.7 (10)	15.8 (-9)	15.7 (0)	13.2 (9)	15.9 (-6)	15 (7)	15 (1)
2013-14	22.6 (10)	11.5 (-6)	12.8 (9)	16.6 (5)	17.1 (9)	15.3 (16)	16.4 (3)	15.6 (4)	16 (6)
2014-15	24.7 (9)	13.2 (15)	14 (9)	17.1 (3)	17.4 (2)	13.7 (-10)	15.5 (-5)	15.8 (1)	16.4 (3)
2015-16	25.5 (3)	11.6 (-12)	12.5 (-11)	16.2 (-5)	17.6 (1)	14 (2)	15.5 (0)	17.6 (11)	16.3 (-1)
2016-17	22 (-14)	12.3 (6)	12.2 (-2)	16.1 (-1)	15.8 (-10)	12.9 (-8)	15.8 (2)	17.1 (-3)	15.5 (-5)
2017-18	21.6 (-2)	12.3 (0)	12.3 (1)	17.8 (11)	14.3 (-9)	12.6 (-2)	18.5 (17)	15.6 (-9)	15.6 (1)
2018-19	21.8 (1)	10.8 (-12)	12.4 (1)	17.3 (-3)	15.2 (6)	14 (11)	17.7 (-4)	15.3 (-2)	15.6 (0)
2019-20	19.4 (-11)	11.9 (10)	12.7 (2)	18.4 (6)	14.7 (-3)	12.2 (-13)	17.4 (-2)	18.7 (22)	15.7 (1)
Trend									
Trend (Growth Rate)									

Source: RBI, <https://www.rbi.org.in/Scripts/PublicationsView.aspx?id=21678>

Note: 1. Data in parenthesis indicate % change in Expenditure on Education (% of Aggregate Expenditure) from the previous period.

2. Trend (Growth Rate) indicate trends in % change in Expenditure on Education (% of Aggregate Expenditure) from the previous period.

3. Data in NE States is calculated as an average of all states of NE region.

Table 6: Trend in Expenditure on Medical and Public Health and Family Welfare (% of Aggregate Expenditure)

Years	Assam	AP	Manipur	Meghalaya	Mizoram	Nagaland	Tripura	Sikkim	NE States
2008-09	5 (-)	4.3 (-)	3.5 (-)	4.4 (-)	6.1 (-)	3.8 (-)	4.8 (-)	3 (-)	4.4 (-)
2009-10	5.7 (14)	4.2 (-2)	4.4 (26)	6 (36)	7.1 (16)	3.9 (3)	4.8 (0)	3.5 (17)	5 (13)
2010-11	5.2 (-9)	4.3 (2)	5 (14)	6.2 (3)	4.2 (-41)	4.3 (10)	4.4 (-8)	4.4 (26)	4.8 (-4)
2011-12	4.9 (-6)	4.4 (2)	5.7 (14)	5.4 (-13)	4.2 (0)	4.3 (0)	5.3 (20)	5.7 (30)	5 (5)
2012-13	4.6 (-6)	4.3 (-2)	4.9 (-14)	6.5 (20)	4.1 (-2)	4.1 (-5)	4.4 (-17)	6.2 (9)	4.9 (-2)
2013-14	4.6 (0)	4.4 (2)	5.7 (16)	6.6 (2)	4.7 (15)	4.2 (2)	5.2 (18)	5.7 (-8)	5.1 (5)
2014-15	4.2 (-9)	6.6 (50)	6.5 (14)	7.5 (14)	5.2 (11)	5.1 (21)	6.1 (17)	5.4 (-5)	5.8 (13)
2015-16	6.8 (62)	4.3 (-35)	5.4 (-17)	7.6 (1)	5.8 (12)	5.1 (0)	5.3 (-13)	5.8 (7)	5.8 (-1)
2016-17	5.6 (-18)	5.8 (35)	4.8 (-11)	6.8 (-11)	5.3 (-9)	4.8 (-6)	5.5 (4)	5.9 (2)	5.6 (-3)
2017-18	6.8 (21)	6.4 (10)	5.2 (8)	7.2 (6)	6 (13)	5.1 (6)	6.3 (15)	7.7 (31)	6.3 (14)
2018-19	6.5 (-4)	6 (-6)	5.1 (-2)	8.8 (22)	6 (0)	4.7 (-8)	6.7 (6)	5.9 (-23)	6.2 (-2)
2019-20	6.5 (0)	6.1 (2)	5.5 (8)	7.9 (-10)	5.2 (-13)	4.9 (4)	6 (-10)	5.8 (-2)	6 (-4)
Trend									
Trend (Growth Rate)									

Source: RBI, <https://www.rbi.org.in/Scripts/PublicationsView.aspx?id=21679>

Note: 1. Data in parenthesis indicate % change in Expenditure on Medical and Public Health and Family Welfare (% of Aggregate Expenditure) from the previous period.

2. Trend (Growth Rate) indicate trends in % change in Expenditure on Medical and Public Health and Family Welfare (% of Aggregate Expenditure) from the previous period.

3. Data in NE States is calculated as an average of all states of NE region.

CONCLUSION

The study focuses on the trend analysis of SSE in NE states from 2008-09 to 2019-20. Overall, NE region have experienced more economic development as compared to economic growth. NE regions have developed by 4.6 times while experiencing economic growth by 3.6 times only. This imply that increase in SSE in NE region have contributed less to the growth of the region. Further, the study also indicate that 17.64% of total expenditure have been devoted to SSE, of which 19% of SSE is devoted to Education while 36.36% have been devoted to Medical and Public Health and Family Welfare. However, SSE/GSDP of NE region has declined by 6.66% over the given time period implying that SSE has contributed less in GSDP of NE region.

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