INEQUALITY IN SCHOOL EDUCATION: A STUDY TO ASSESS THE REGIONAL DISPARITIES IN UNIVERSALIZATION OF ELEMENTARY EDUCATION IN INDIA

Dissertation

SUBMITTED TO THE NATIONAL INSTITUTE OF EDUCATIONAL PLANNING AND ADMINISTRATION, NEW DELHI IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE DEGREE OF

MASTER OF PHILOSOPHY

2018-2020

RAJ GAURAV

NATIONAL INSTITUTE OF EDUCATIONAL PLANNING AND ADMINISTRATION, NEW DELHI

APRIL, 2020

CERTIFICATE

This is to certify that the M.Phil. Dissertation entitled **"Inequality in School Education in India: A Study on Regional Disparities in Access and Participation"** is the record of bonafide research undertaken by **Mr. Raj Gaurav** under my supervision and guidance. To the best of my knowledge, this research work conducted by him is worth submitting for the Degree of M.Phil. Degree in this Institute.

Supervisor

Dr. Suman Negi

Department of Educational Planning

NIEPA, New Delhi-110016

DECLARATION

I declare that the M.Phil. Dissertation being submitted is the bonafide research carried out by me on the topic entitled **"Inequality in School Education in India: A Study on Regional Disparities in Access and Participation"** and has been completed under the guidance of **Dr. Suman Negi**, Department of Educational Planning, NIEPA, New Delhi. I further declare that the present study has not previously formed the basis for the award of any Degree, Diploma, Associateship or Fellowship or any other similar titles of recognition.

RAJ GAURAV

M.Phil. Scholar

Enrolment No. 20181011

NIEPA, New Delhi-110016

ACKNOWLEDGMENT

In this study, I have been helped by many people whose contributions helped me in making this dissertation. I want to express my gratitude from the bottom of my heart.

First and foremost, I owe my gratitude to my supervisor **Dr. Suman Negi**, for the continuous support and her immense knowledge, enthusiasm, motivation, and Patience. She showed me the proper direction for my M.Phil. Dissertation. Her constant willingness to help, her constructive criticism, and encouragement despite all odds led me to the completion of my study. On the professional front, I have benefitted from her immense knowledge and experience and on the personal front, I have learned from her punctuality, sincerity, and honesty. I could not have imagined having a better advisor and mentor for my M.Phil. Dissertation.

My profuse thanks are due to the head of the Department of Educational Planning, Prof. K.K. Biswal, and members of the department Prof. Geetha Rani and Dr. N. K. Mohanty for their suggestions, encouragement, and kindness throughout the dissertation period. I am also thankful to all staff members of NIEPA Library and Documentation Centre for their support as my study was enriched by the library during my work. I owe my thanks to Mr. Jameel Ali, a staff of the Department of EMIS for his continuous support and guidance in the UDISE dataset.

Many more people who helped me during the preparation of this dissertation, Pragati, Dipendra, Naseem, Sheetal, and Rahul for their kind help and support in making this work easy for me. I am also thankful to all my colleagues for giving inputs for the betterment of the Dissertation.

I thank Almighty God for showering his blessing upon me to reach my goal.

Raj Gaurav

CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

APPEP	Andhra Pradesh Primary Education Project
BEP	Bihar Education Project
BRC	Block Resource Centre
DPEP	District Primary Education Program
EFA	Education for All
GER	Gross Enrolment Ratio
GOI	Government of India
GPI	Gender Parity Index
IDA	International Development Association
MHRD	Ministry of Human Resource Development
NCERT	National Council of Educational Research and Training
NER	Net Enrolment Ratio
NFE	Non-Formal Education
NIEPA	National Institute of Educational Planning and Administration
NSS	National Sample Survey
OECD	Organization for Economic Co0operation and Development
PE	Primary Education
RTE	Right to Education
SKP	Shiksha Karmi Project
SIDA	Swedish International Development Agency
SC	ScheduledCaste
SDGs	Sustainable Development Goals
SSA	Sarva Shiksha Abhiyan
ST	ScheduledTribe
UDISE	Unified District Information System for Education
UEE	Universalization of Elementary Education
UK	United Kingdom
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
UPE	Upper Primary Education
USA	United States of America
UT	Union Territory
VECS	Village Education Committees

CHAPTER I

INTRODUCTION

1.1 Background

India geographically is a land of diversities, as its land comprises of mountain ranges, valleys, desert regions, forests, fertile plains, dry plateaus, coastal areas, etc. It has the second-largest population in the world with over 1.25 billion people living on its territory and it has an increased density. Apart from physical diversity, India is also very socially and economically diverse, which is reflected in the different structures of caste, culture, religion, and ethnicity of our communities.

Along with the diversity, there also exits a lot of disparity within the different regions of India, these disparities can be seen and measured between different indicators of development. Taking the case of education, not all regions represent a similar level of progress, and the evidence reflects the level of development towards the provision of Access, Participation, and Pedagogy environment. If we look back and review the progress our country has made on various aspects of education, we find that substantial progress has been made since Independence but we still have not been able to achieve our targets to educate all children. Although efforts have been made to create necessary conditions to enable all children into the schooling system, still there is a lot to achieve. Some of the initiatives taken by the government to ensure universalization of elementary education in India include programs like the Operation BlackBoard, District Primary Education Programme (DPEP), Sarva Shiksha Abhiyan (SSA), Right to Education (RTE)and Samagra Shiksha have been launched to improve access and coverage of elementary education in India.

Education has a transformational and empowering role and has been considered to be an important asset for pursuing national development, professional, and personal, goals. Education has also been identified as one of the major sources for the empowerment of those belonging to marginalized and backward classes, communities, castes and regions and is extremely important for the development of any country.

Irrespective of the value, expected benefits and the returns education can give us the developmental achievements have not been equal. Inequality in education is visible across all levels of education and more amongst the vulnerable groups.

Schools in this context become important places where students from various communities and cultures interact. Education is imparted both in Formal as well as Non-Formal settings. Non-formally, it can be imparted through the immediate family, environment, and the society a person lives in. Apart from that, there are formal structures established that are entrusted with the responsibility of imparting education. Foremost among such types of structures are Schools. As such, schooling is associated with educating Individuals. The sociological analysis of 'Schools as Institutions' views them as systems as well as organizations. Consequently, the Sociology of Education views Schools from two principal approaches: Structural and Functional. The systems view reinforces the analogy of society as a biological organism, which ensures the continuity of the institutions in society. Hence, the school as a system is a structure in which essential units are connected in an integrated whole. This integrated whole forms the social structure which is derived from different parts or elements arranged in a specific order. The characteristic property of any structure in this whole is the homeostatic principle (King, 1967: 34). Education is supposed to inculcate the norms and values of society to allocate people to their roles and to structure the real images of the population by the organization and distribution of knowledge (Blackledge and Hunt, 1985). The school structure maintains and legitimates itself in the societal system by catering to the educational needs of the Society.

On the other hand, functionalism is based on Consensus. People agree on the basic values of the society they live in and reorganize its benefits. If consensus exists, it is in everybody's interest and the society can operate smoothly. The functionalist analysis of the education system relates schooling to the needs of the economy. Schooling is considered to help children to develop and discover their talent so that they join the workforce and enter occupations suited to their talents (King, 1971). Schooling helps them to identify, nurture, and develop such talents. Durkheim opined that the function of an institution of society is the correspondence between the institutions and the needs of

society. Thus, School is performing the function of socialization of the young and hence fulfills one of the important needs of the society.

Whether we take into account the Structuralism or Functionalist approaches, the underlying tenet is that Education helps children to develop and improve upon their socialization and economic needs to fit into the societal structure and the task of imparting education has been attributed largely to Schools. Within the schooling system, Education is imparted in levels so that there is minimal knowledge to be grasped, understood, retained and internalized at a certain level to be eligible to move on to the next level of learning. These are mainly the Elementary Education and Secondary Levels of Education.

It has often been seen that different states apply various flagship/ state or centrally sponsored program in time taking manner. In such a manner of implementation, various regions lag in advancement towards achieving different educational targets. Various other reasons could be time taking which would result in a difference in pace of development in different states and further leading to inequitable educational development in different states.

Education has been deliberated in different themes having its economic significance, psychological implication, and sociological impact. The recent geographical viewpoint is in its developmental stage in India. The study of education in the geographical approach would be seemingly more descriptive for the dissemination of various attributes like educational infrastructure, and enrolment ratio aimed at assessing the spatial disparities. Moreover, all the attributes are characterized by an unequal distribution over space, disparities among males and females in space within the differential socioeconomic status, and biases in an urban area and rural area or different states having an unequal educational development due to various reasons. Whereas, inequality in education is not purely an educational issue as it cuts across the economic, political, and social fabric of the length and breadth of the country.

Naik[1] (Naik, 1965) rightly cognized the nature of inequality in education:

> "….there remain appreciable inequality of educational opportunity at several levels and in several sectors. From the national point of view, there will be wide gaps between advanced states and backward states. At the state level, we find a great difference in achievement between certain advanced districts ani the backward districts. Large differences have been seen even within the same district, between district's one tehsil and another, and even in the same tehsil, all villages are not equally advanced. There are still large differences between urban and rural areas. From the social point of view, there is great inequality of educational development among boys and girls and also between the scheduled communities on the one hand and the advanced communities on the other."

The nature of inequality differs over space and time and it results in narrowing and widening down of magnitude of inequalities. India has made several attempts to bring in reforms to narrow down the magnitude of inequalities but instead has only perpetuated. It has often been seen that different states apply various flagship/ state or centrally sponsored program in time taking manner. In such a manner of implementation, various regions lag in advancement towards achieving different educational targets. Time taking process could result in a difference in the pace of development in different states and further leading to inequitable educational development in different states. As per School Education Quality Index (2019), there are large variations in the overall scores for States and UTs as well as in how they perform in different category areas in the reference year (2016-17), a small group of States and UTs significantly outpace all others in their rates and within the Outcomes category, there is a high degree of variation in State and UT performance on Learning Outcomes, Access Outcomes and Infrastructure & Facilities for Outcomes. On the other hand, there is little variation in Equity Outcomes.

[1] J.P. Naik (1965), Elementary Education India, Asia, Bombay

1.2 The rationale for conducting a research study

Educating and empowering young boys and girls is extremely important for the growth of a country; it brings political, social, economic, and health advantages. The government over the years has taken important steps to help all children with the basic provisions and facilities in schools through many centrally sponsored schemes. Despite these provisions, many children remain outside this education system. Although the number total out of school children given by various official sources in India shows wide variations. The Ministry of Human Resource Development (MHRD) survey (IMRB-SRI, 2014) estimate of this figure is 6 million, while for the same year, the National Sample Survey (NSS) figure is 20 million. The concerns of these children being out of the school system to raise issues of the long efforts made by the state for decades to get these children into the schooling system. The present study is an attempt to understand and analyze this process of universalization of education at the elementary level of schooling and to understand the inequalities that exist across India.

India has adopted SDG 4 which strives to ensure inclusiveness, promote lifelong learning, and equitable quality education. The same has been integrated into Samagra Shiksha as well. So respectively, there is an immense need to study inter-state differences inequitable quality education parameters as integrated into sustainable development goal 4 to understand how India has been able to adopt various policies and been able to progress over years. As quality education within an equity framework can lead to sustainable development, social justice, and peace. However, the challenge is to aim for more than noticeable short-term outcomes. The comprehensive notion of quality education covers all components of the education process i.e. reasonable class sizes, broad-based curricula, learning materials, and adequate teaching. A well-qualified and supporting teacher should be the right of every student within a learning-friendly school equipped with adequate resources, facilities, and infrastructure. Samagra Shiksha is a good example as an Integrated Scheme which has an agenda of equity that work towards an outcome-based approach as moving away from a provisions-based approach and an incentives-based approach leading to develop an important understanding on issues contributing to exclusion.

In this context, it is important to understand that various states in our country have made efforts to improve upon the basic provision of School Education in different regions in making schools accessible. So it is extremely important to understand the existence of the differences among states in the provision of school accessibility and other infrastructure. Uneven participation of those belonging to different social groups gender and the divide that exists in rural and urban areas in access has been a serious issue for so many decades. Access and equity must go all together, almost all programs and plans aim at bridging gender and social gaps in enrolment retention and learning achievement at the primary stage. As mentioned earlier special interventions and strategies have been adopted to include girls SC/ST children working children with special needs urban deprived children from minority groups children living below the poverty line migratory children and children in the hardest to reach groups In light of the various interventions that have been made the present study aims to analyze how far have we reached in aspects related to some of the key performing indicators to assess the universalization of elementary education in India and understand the existing regional disparities

1.3 Review of Literature

This section attempts to look into the available literature to get a better understating of the existing disparities in the process of universalization of educational opportunities.

1.3.1 Nature of Inequalities

Education has a transformational and empowering role and Schools are important places where the interaction of students from various communities and cultures interact. An important question is how egalitarian these classes are in terms of equality not only in institutional terms but also considering the dignity aspect of equality. Reports and studies which tried to look at equality education have focused on the qualitative aspect of equality and based their research on that but a behavioral aspect of teachers, manager, and stakeholders are also important to get a clear picture of equality and discrimination.

Non-discrimination can be a necessary condition of equity but it is still not sufficient condition because equality in substantive terms is a positive concept and it involves positive steps not only from the state but also from various stakeholders in education. RTE Act has mentioned that equity is not only about the equal opportunity to all but also the creation of condition in which the disadvantaged sections of society -i.e. landless agricultural workers, children of scheduled caste, children with special needs scheduled tribe, and the Muslim minority, etc. can avail the opportunity (Govinda. R & Sedwal. M, 2017). Equality in its broader terms is not only limited to a negative conception of eradicating discrimination but it also involves positive steps in creating grounds for provisions of equal opportunity.

Natures provisions Vs Social Provisions led to the creation of distinction and that is how Rousseau (1937) in a discourse on the origin of inequality discussed inequality of two types i.e. nature established- natural inequality (e.g., differences in "qualities of the mind, health, age, bodily strength, and qualities of the soul") and social inequality "authorized by the consent of men" such as inequality in income, wealth, honor, and power; and he turned his attention to the latter kind. Maximum times various social scientists give their attention to the latter kind only. Generally, social inequality response falls into two typical categories: (a) one who put efforts to justify the presence of inequality and agree to it either by reason or by forcing the underprivileged to accept by coercive power, and (b) efforts to eliminate the causes and conditions of inequality. The former category supports and argues that inequalities are inevitable, it arises out of the society's needs, like occupational specialization, and which are reasonable and valuable. The former category also argues that when there is a surge in the number of people with high education, it will speed the expansion of knowledge that will increase national income in future, and the contribution tends to get bigger whenever public expenditure is mostly concentrated on the students who are academically bright rather than being dispersed arbitrarily. As most of the ruling parties or policy-makers reflects elitist interests in almost all the modern countries, they thus try to justify the prevailing inequalities and shelter the subservience of the disadvantaged majority.

As per the OECD book titled “No More Failures Ten steps to equity in education” (Field, 2007) “Defining equity in education has two dimensions. The first is fairness, which implies ensuring that personal and social circumstances – for example, gender, socio-economic status, or ethnic origin – should not be an obstacle to achieving educational potential. The second is inclusion, which implies ensuring a basic minimum standard of education for all – for example that everyone should be able to read, write, and do simple arithmetic. The two dimensions are closely intertwined: tackling school failure helps to overcome the effects of social deprivation which often causes school failure.”

As per Samagra Shiksha draft document equity, accessibility and quality in education have been explained as: “Equity will mean not only equal opportunity but also the creation of an environment in which the underprivileged majority of the society – children with special needs, children of the Muslim minority, ST, SC, transgender children, and landless agricultural workers, etc. can come closer to avail the opportunity in an inclusive environment free from discrimination. Access will not be confined to merely confirming that a school becomes accessible within a specified distance to all children but infers to support of the educational needs and dilemma of the conventionally rejected categories – the ST, SC, girls in general, the Muslim minority, sections of the most deprived groups, children with special needs and transgender children. Equity has been seen as an essential part of the agenda on improving quality education, therefore, it encompasses to resolve various issues of educational planning, curriculum, teacher training, education, language, and management”

In respect to the opinions over economic growth and national income, Denison (1970) states that education has multiple benefits to the recipient like non-economic and cultural benefits. Extensivediffusion of these benefits more likely seems to bring enhancement in social welfare rather than high focus on the academically talented".

As Coleman (1966) has pointed out that one should note that perfect equality requires that the schools start to produce equal results as an output with equal efficacy and equal skills' like a homogeneous product of an industry, which is impossible in our education system. Not only it is impossible, but also we do not require that all the people

should know the same things, nor that all the pupils should be taught the same curriculum.

Different policies over the years have made several kinds of impacts on quality education and so had been by the introduction of para teachers which has been stated even which has fractured the teacher community. Govinda. R. and Mathew. A. (2018) in his paper "Universalization of Elementary Education in India" The net effect of this regressive policy and practice was that it permanently damaged the progress of building a professional community of teachers which is vital for achieving UEE with equity and quality. That the effect of this damage continues is evident from the fact that saddled with multiple layers of a fractured teacher community, the Government has not been able to apply the RTE requirement of ensuring that professionally qualified teachers are available in every school in adequate numbers. In the story of UEE, this disruption in the process of creating a strong professional community of teachers stands out as a demonstration of how short-term economic gains and political expediency was allowed to cloud the vision for establishing an equitable system of quality elementary schooling in the country.

Understanding dimensions involved in educational inequality as Brighouse (2003) has brought the important question of radical equality in the educational setting of the UK and USA is understating regarding the issue can serve as an important tool to understand dimensions involved in educational inequality. He elaborated on limitations of the Meritocratic view and this view can be a reason to bring inequality. His views can be an important tool to understand the downward filtration theory propounded by Macauley. The meritocratic view based on caste and gender has been used to justify the exclusion of lower caste and women since ancient times. Even when our constitution has gone in for provisions of strong affirmative actions to bring marginalized at par with others, meritocratic rationality is still prevalent and reservations are considered bad for efficiency and to some extent injustice by a large population. So it's important not only to bring institutional changes but also changes in rationality and philosophical justification so that there is no gap between policy and real practices. In the context of India, Conception of merit can be linked to constitutional mandate and recognition of the importance of affirmative action to help the least advantaged in society.

Whereas criticizing Rawls's theory of justice, Shelby (2004) talked about integration, inequality, and justice with a special focus on Imperative of Integration Elizabeth Anderson. They took integration as a solution and Considered plight of black undemocratic interaction and group disadvantage which cannot be eradicated with traditional ways of distributive justice rather need integration. She criticizes Rawls's theory because it is based on wrong assumptions. After all, theory cannot eradicate anti-black hostility from in minds of people even if it focusses on institutions. She focused on intergroup relationships and questions regarding the justification of inequality is depends on the nature of intergroup relations. Unjust relation creates oppression and when they fail contractual acceptability. He talked about segregation and divided them in just and unjust based on the relationship between groups. Segregation is taken as a structural issue that keeps inequality intact in the system. She considers integration as imperative of justice and values integration because of its potential for democratic dialogue. Integration is not a way of dominance of cultural domination rather reciprocal democratic cultural exchange between groups. She treats integration as part of corrective justice. The obligation to promote obligated to promote social justice in which integration lies in every citizen because they necessitate integration. So her approach of corrective justice necessitates integration and puts obligation state to prove space where integration can occur.

John Rawls (2009) considered Justice as the first virtue of the institution and brought the idea of justice as fairness. He attempted to reconcile two important liberal values that is equality and liberty in such a way that justice is done and the reason for unrest can be minimized. Rawls elaborated His theory of justice with the help of some innovative ideas like the veil of ignorance, primary goods, and justice as fairness. He was even given value to people's opinions about institutions as an important factor in deciding the stability of that institution and this the main reason he has given values to fairness. He said that in the condition of the veil of ignorance everyone will agree on two principles of justice which are in lexical order: The first principle (the principle of equal liberty), "each person must have an equal right to the most extensive total system of equal basic liberty for all, consistent with a single system for all. "The second principle (the principle of inequality) states that the inequalities (economic and social) are justified only if everyone

has equal basic liberty and inequality should be for the advantage of least advantaged group. Here he considered inequality justified only in two conditions one if there is equal basic liberty and second it should help the least advantage no other way around. His two principle of justice worked can be seen as a defense of affirmative actions.

1.3.2 Educational Inequality in India

Tilak (1979) in Inequality in Education in India has said that we can study the problem of inequality in education in the following four different stages i.e. Inequality in Educational Opportunity (IEO), Educational Attainments (IEA), Occupational Attainments (IOA), and Returns to Education (IRE). Equality in education is not possible if the participants in the race start from different points. Thus, equality in education requires major changes in the society at large, apart from reforms in the educational system which are also very important. Thus, a multi-targeted and carefully planned attack on inequality is required. The policy-makers in India concentrated their attention on school reforms only. A shift in attention is necessary from schools to homes. This would solve the problem of inequality in educational opportunity and inequality in educational attainments. If these twin problems are solved efficiently, the other twin problems of inequality in the job market and inequality in incomes will get solved.

Amartya Sen (2007) elaborated his view on merit and how it is linked to justice. He argued that the concept of merit is dependent on the view of a good society. He pointed out internal conflict within the concept of merit and challenged the fixed conception of Merit. He considers merit regarding action is dependent on the idea of a good society. The person doing work in the line with good Society is considered as meritorious by society. The idea of a good society in a particular theory of justice includes criteria for judging individuals in the line of merit and what is considered as meritorious. He tried to show the relationship between the comprehensive theory of justice and the conception of merit. The concept of meritocracy seems to have been in his influential book *The Rise of Meritocracy,1870-2033* invented by Michael Young (Young 1958). Young himself was deeply critical of the development associated with the Conception of Merit. The idea of distribution and merit is linked as stated by Young

herself. In the context of India, affirmative actions are part of distributive justice to create equal opportunity to least advantaged.

Amartya Sen (2009) expanded the notion of equality of opportunity with the help of the capability approach. Amartya capability approach can help expand the notion of real equality of opportunity. Amartya Sen's capabilities as freedom or real opportunity have some advantage over the popular conception of justice propounded by Rawls (Beckley, H. 2002). Although both agree on the role of society in creating conditions for disadvantages so that they can get an equal opportunity but both differ in approach and efforts expected from society. Sens approach can be more helpful because it is focusing on capabilities and functioning aspects of equal opportunity not limiting to the feature of particular institutions.

1.3.3Accessibility and Participation

Education for all associated with the sustainable development goal's development strategies has a central focus on Access to education. To strengthen the developmental prospects of nation, states, and individuals through making efforts to increase equity, reduce poverty across all low-income countries to achieve universalization of elementary education and gender equity in it.

Since Independence, India has progressed slow but steady in the provision of access to elementary education. The term schooling indicates not only having a school in a nearby location but also the quality of infrastructure in the schools, and most importantly whether the school can attract children or not. However, having a school within the stipulated distance cannot attract children for schooling. Parentaljudgment to send their children to school is dominated generally by the supply-related variables like the provision of physical infrastructure in primary schools. Numerous studies have shown that bad quality of schools is pushing children out of the folds of formal learning (Lewin, 2007; Sinha and Reddy, 2010; Govinda and Bandyopadhyay, 2011). So many children are there having initial access to school but attend irregularly due to inadequate resources and infrastructure facilities (Govinda and Bandyopadhyay, 2008). Some of the basic facilities needed to facilitate effective education in an institution are classroom, drinking water facility, toilet facility, library, and other ancillary facilities. A school cannot run

without basic infrastructure. The RTE Act has mandated many of the infrastructural provision for running a quality school. Therefore, it is important to investigate the gap between actual and optimal conditions of infrastructure in any primary school.

Enriching learning at the Elementary level is extremely important for moving from a compulsory education mode towards the Secondary and Higher Secondary level of education, which again acts as an important base for Higher Education. Entry into the higher education system is always subject to secondary education graduation. The foundation level learning in the early stage of life becomes very essential towards preparedness for the rigorous Elementary level of Education which brings in a strong foundation for the students towards their higher level of Education and fulfilling the goal of getting a job in later years.

Access term is often used within both enrolment and opportunities for learning which is described as 'access' and 'quality' and access as per CREATE model is termed as 'meaningful access'. Ramachandran &Saihjee have termed it, there is a 'new kind of segregation' in place (Ramachandran &Saihjee, 2002:1600) where not only do children from different socio-economic groups attend different types of schools but even within the government primary system there is evidence of vast differences in quality, physical facilities, community participation, allocation of funds, etc. Such factors within schools place some children at risk of low achievement and dropout.

One may witness unmatched disparities in terms of educational attainments as in access to education. This establishes a major drawback on the awareness of the right to education without exclusion or discrimination. It calls for larger stress upon the accomplishment of State commitments to ensure that the basic principle of equality of opportunity in education which is common to almost all international human rights treaties is given effect to. It also calls for deepening normative action with more focus on social protection and affirmative action measures for attaining equality of opportunities in education as in fact and law. A strong regulatory framework grounded in the principle of equality of opportunity for public and private education systems provides the crucial basis for the formation of a complete range of programs and policies, steered by equitable approaches in support of the children from poor families, and in particular with the marginalized(Singh, 2014).

1.3.4 Regional Disparities

The disparity can be categorized into four types such as Rural-Urban disparities, Intrastate Disparity (Disparity within States), Interstate Disparity (Disparity between States), and Global Disparity (Rajalakshmi, 2013).In developing countries, agenda like growth with equity along with social justice have remained for many decades. Efforts are being put with an effective plan to reduce the disparities to a minimum in the shortest time-span. Causes of inter-regional variation or regional imbalance or disparities in India. Regional imbalances as prevailing in a country like India are influenced mostly by a variety of factors ranging from economic, historical, geographical, and even political factors. According to UNESCO, it is considered discrimination or inequality when any person is denied access to education of any type at any level to which his abilities warrant, any person is limited to the education of an inferior standard, any person seeking education is subjected to conditions which are incompatible with the dignity of man.

Gender is one of the key parameters in disparity, like disproportionate access to educational opportunities (Aslam, 2009; Azam and Kingdon, 2013; Maitra et al., 2011; Srivastava, 2006) have rendered into substantial learning disparities across South Asia (Alcott and Rose, 2015; Asadullah and Chaudhury, 2015; Borooah, 2012; Kingdon, 2002). Whereas, among poor families in Uttar Pradesh, for example, by the age of 10, girls fall 10 percentage points behind boys in advancing basic numeracy skills (UNESCO, 2014). Such figures are severely engrained, gender inequalities in literacy rates have remained consistent for decades as per Indian census data (Kingdon, 2007).

To achieve universal primary education and not accentuate existing disparities, special focus is needed in the provision of equal opportunities to participate and succeed in quality primary education irrespective of the creed, location, and caste of children within the time frame. However, in terms of accessibility special attention is needed to facilitate the deprived children, retention of girls, and first-generation learner's category. It is extremely important to safeguard deprived groups which include girls, working children, children with special needs, ethnic minorities, children living under difficult circumstances through separate goals (Aggarwal, 2001).

1.4 Conceptual framework of the study

This research aims to explore trends in educational access and participation to identify different regions that are prone to exclusion from educational opportunities at the elementary level of education. This has been drawn through various references from a series of analytical papers and U-Dise data. It has been developed on different themes, including the regional disparity in education, gender and social inequality in educational opportunities, and governance of education, among others. The first objective of the paper is a brief review of the status of accessibility in different states of India at the elementary level and the second objective has been focusing on the Inter-state inequality in Participation at the Elementary level. The third objective is to identify the existing regional disparities in the Universalization of Elementary Education with a focus on accessibility and participation across different States. The trends in regional disparity over a decade in educational accessibility and participation within different zones of exclusion highlights the nature and magnitude of the problems of accessibility, and inequality. In the final section, the dissertation makes an effort to identify varying gaps in unequal accessibility provisions, level of participation and prevailing regional disparities to look into how far we are from achieving universalization of Elementary Education. There is a need for further research and also identify strategies that could have had some success in addressing issues of access to elementary education in India and bring in equity.

1.5 Research Questions

Several pointed questions attempt to find sustainable solutions to this study if properly answered. Prominent amongst which include but not limited to the below listed to identify the existing inequalities in education at the elementary level.

- What is the status of accessibility and participation at the Elementary level of Education?
- Why are some regions still lagging in providing basic educational provisions and facilities?

- Have we achieved Universal Elementary Education, if no how far are we from achieving it?

1.6 Research objectives

The study has been conducted keeping in view the following main objectives:

- To undertake the diagnostic exercise for the status of Accessibility in different states of India at the Elementary level.
- To examine the Inter-state inequality in Participation at the Elementary level.
- To identify the existing regional disparities in the Universalization of Elementary Education with a focus on accessibility and participation across different States

1.7 Operational definitions of keywords

Keywords: Access, Participation, Elementary Education,

***Access*:** Access is a supply-side concept and refers to the physical access to schools that enables the student population to avail schooling provisions. In the present study, access would mean the availability of Secondary schooling provisions within prescribed norms. Also, it would mean access to educational facilities provided within these schools. For instance, infrastructure facilities like a proper building, an adequate number of classrooms, academic facilities like laboratories, teachers, and other essential facilities (drinking water, electricity, proper sanitation,etc.). Appropriate indicators, developed on the nature of data available, have been used to assess the status of access to secondary schooling provisions and access to educational facilities in secondary schools.

***Participation*:** Participation is one of the concepts that is viewed as a demand side. In this study, participation would mean the study of students that form a part of elementary schools in terms of their enrolments, attendances, repetition, gender distributions, student flow rates, etc. developed into appropriate indicators from available data.

***Elementary Education*:** This would entail grades I to VIII of Schools.

1.8 Research Design

The present study on inequalities in school education in India is a detailed analysis of the available secondary database on school education. It follows a quantitative methodology, wherein data from various sources have been taken and compared to understand the processes and achievements within the targets set for the Universalization of Elementary Education. Various applicable quantitative techniques have been used to understand the relationships between the indicators of access, participation, and performance and to examine the existing regional disparities. These have been done for:

- *Gender*: between females and male population groups and;
- *Regions*: rural-urban, within and between regions.

***Area of research*:** The proposed study has been an extensive and detailed exercise of the available data on school education across the different states of India. All the states have been included to understand the regional disparities that exist in the diverse social, economic, physical, and political Indian setting. This data also includes the component of a temporal analysis across the states to assess the changing patterns of inequality in school Education.

***Data sources*:** To give an overview of the status of elementary education in India on accessibility and participation, different data sources have been referred to. These data sources have been related to indicators selected. The main sources of data include the following:

- *DISE and U-DISTRICTS- NIEPA*: Spatial and temporal data on schools for attributes related to Access, Participation, and Infrastructure
- *Census of India:* Demographic data, and age-wise population, etc.
- *Ministry of Human Resource Development:* State-wise data on Access and Participation

Selected Indicators to measure inequality in education

Some of the following indicators listed have been captured at the state level to capture the existing regional disparities in education.

Access:

1. Status of uncovered habitations with primary and upper primary schools.
2. Accessibility to schooling provisions has been calculated for a different type of schooling across the states of India.
3. Categorization of States having different ManagementSchools.
4. Categorization of States having different Management Schools in rural and urban settings.

Infrastructure:

- State-wise distribution of schools with basic facilities such as drinking water, Girl's toilets, Electricity, Computer, and Ramp facility at the elementary level.
- A decadal trend analysis of several indicators such as drinking water, Girl's toilets, Electricity, Computer, and Ramp facility at the elementary level.

Participation:

- Gross Enrolment Ratio across states has been analyzed.
- Gross Enrolment Ratio of boys and girls of different states has been analyzed.
- Net Enrolment Ratio across states has been analyzed.
- Net Enrolment Ratio of boys and girls of different states has been analyzed.
- Student Flow- Promotion, Repetition, and Dropout rates.

Tools and Techniques for Data Analysis

Some of the tools and techniques that have been used to analyze the above-mentioned indicators are as follows:

- **Gender Parity Index (GPI)**: GPI simply means learning opportunities available for women to those available to men or it can be said that it measures education participation between male and female as gender parity progress.
  GPI=F/M
- **Composite Index:** Composite indices has been calculated by the weighted rank method for measuring the availability of physical infrastructure and participation indicator across states using indicators stated above.
- **Correlation analysis:** has been done between the various indicators of educational accessibility and participation to test the relationship between them.

Analysis of the research includes the construction of an Accessibility performance tool, which comprises seven major variables that are part of the provision of accessibility in school education. The seven variables have been selected to construct the index. After the selection of the variables, the data for each parameter has been organized for each state, and based on that, the Accessibility performance of each state has been calculated. Index delineates the categorization of states with the top 5 states and bottom 5 states in terms of performance. This would help in analyzing the performance of each state on parameters of the provision of accessibility in school education not just merely by the presence of schools.

The variables, for example, can be:

- Access to Primary Schools,
- Access to Upper Primary Schools,
- Availability of Drinking Water,
- Availability of Electricity,
- Availability of Girls Toilet,
- Availability of Ramps, and

- Availability of Computers

1.9 Delimitations of the study

The Study has been constrained with Secondary sources of data as lack of time won't allow primary data collection with so much comprehensive data set preparation. The only major source of data set available is at U-DISE, which is reliably well enough but sometimes data missing or unavailability of data does also create some kind of hindrances in data analysis. Especially, while doing a trend analysis the availability of data of many years is needed and missing data doesn't allow to have an interpretation smoothly. Sometimes, a contradicting dataset also emerges due to which confusion arises on their adoption. This study lets us know about the various regional disparities in educational inequalities in various states. But we may not know the exact fact and figures as there might be various reasons for such inequalities at depth, especially when there are too many chances of variation in different region-specific issues and problems being hard to interpret based on a secondary dataset.

1.10 Scope and Policy Implications of the study

The SSA scheme falls in consonance with the policy of universalization of Elementary Education. The framework and approach of this scheme impressively capture the essence of this policy and have laid out the groundwork and requirements for achieving universal elementary education.

However, schemes are effective only when they are implemented according to the prescribed framework. This Study provides numerous pointers towards the lag in the proper implementation of the SSA scheme. In some cases, the structures are not in place whereas, in others, the structures do not function effectively. The policy or UEE has been planned but the implementation of this policy was not being carried out in a planned way. Power decentralization has not taken place and planning is not need-based. Merely continuing in the same direction will not help to achieve the goal of UEE. It is important to look at some measures for proper implementation of the scheme so that SSA becomes successful and UEE becomes a reality. After the implementation of Samagra Shiksha,

there is a hope of efficiency and accountability in all stakeholders under the school system to boost up the quality of school education in India.

1.11 Plan of the study

The chapterization of the study includes the following:

The first chapter of the study is an introduction that gives a background of the state of Elementary education in India, the rationale and it also looks at the related literature followed by the proposed research questions, and the objectives of the study. It also consists of a research design and methodology.

The second chapter is to understand the Status of Access in Elementary Education in India with a focus on status in the achievement of Universal Elementary Education (UEE) in the context of the different parameters within the provision of Accessibility on the development of elementary education in India.

The Third chapter looks into the available infrastructure in the elementary schools of India and how we have done over the years in providing them with basic provisions.

The Fourth Chapter consists of the status of participation in the Elementary Education system in India across different States and regions of the country.

The last chapter is on Summary and Conclusion which looks into the hindrances in the developmental indicators of the school system and also suggests the policy recommendations needed as mandating reforms and Political willingness that is needed in different regions of the country to fill the gap of inequality in school education.

CHAPTER II

STATUS OF ELEMENTARY EDUCATION IN INDIA

2.1 Introduction

The introductory chapter discussed the main aims, objectives, and the procedure that this particular study will follow. It gave in detail the methodology and tools that would support in understanding the existing disparities that exist in the universal achievement of elementary education. The present chapter attempts to analyze the current status of elementary education in India after the launch of the flagship program of SSA. The chapter attempts to trace the development of elementary education in India over the years and see how far we have reached in the getting children in the age groups of 6 to 14 years into the schooling system. Available secondary data from the U-DISE and various school statistics have been analyzed to assess the current status of elementary education.

2.2 Education System in India

The education system in India is characterized by three main stages: Elementary Education, Secondary Education, and Higher Education. Whereas Elementary and Secondary Education is imparted by Schools, Higher Education is a prerogative of Universities. These are also called the Primary, Secondary and Tertiary levels of Education. The Kothari Commission (1964-66) recommended a National System of Education in which Schooling would be divided into ten years of High school followed by two years of Higher Secondary School and three years of Bachelorette courses in Higher Education. This is commonly called the 10+2+3 pattern of the Education system.

The Elementary and Secondary Stages are further divided into grades. Elementary education (Grades I-VIII, 6-14 years of schooling) is the foundation for basic learning, apart from being a means of progression to the Secondary stage. It is further sub-divided into Primary schooling of 5 years (Grades 1-V, age 6-10 years) and Upper Primary schooling of 3 years (Grades VI-VIII, age 11-13 years). Secondary Education (Grades

IX-XII) is the intermediate level between the elementary and higher 1levels of education. The Secondary Education level is further sub-divided into the Junior Secondary (grades IX-X, age 14-16 years) and Senior Secondary levels (grades XI-XII, age 16-18 years). The Secondary stage is critical in the educational hierarchy in terms of preparation for higher education and also for employability. At this stage, students are eligible for joining various vocational and technical courses, to join the skilled workforce.

However, a uniform pattern of the grade division at different educational levels, as stated above, is not observed in all states. For instance, in 13 States/Union Territories of India, including Andhra Pradesh, Assam, Goa, Gujarat, Karnataka, Kerala, Maharashtra, Meghalaya, Mizoram, Orissa, Dadra & Nagar Haveli, Daman & Diu, and Lakshadweep, Grade VIII is included in Junior Secondary Education. Further, in 18 Provinces like Assam Andhra Pradesh, Chhattisgarh, Goa, Haryana, Himachal Pradesh, Maharashtra, Jharkhand, Karnataka, Manipur, Bihar, Meghalaya, Mizoram, Nagaland, Orissa, Punjab, West Bengal and Chandigarh, the Higher Secondary Grades (XI-XII) are attached to degree colleges and are called Junior Colleges. Hence, all states in the country do not have a common (5+3+2+2) pattern of schooling.

Elementary Education: Elementary education is an indispensable base in the education system for the development of every child, citizen, and nation as a whole. It occupies a very important place in the entire structure of education. Since this is the inception level to enter the system of education, it is considered to be of utmost value and importance. This level of education serves as the basic foundation for learning and also as a means of progressing to the Secondary level of education. Hence, lot of significance is attributed to Universalization of Elementary Education (UEE), which means that Elementary Education should be made accessible to all children belonging to the 6-14 age group and these children should complete eight years of elementary schooling, including five years of Primary Education (UPE) and three years of Upper Primary Education. The SSA was one of the first pan India development initiatives that gave every child and every school the required support to improve and enhance the teaching and learning taking place in the classroom space. "Education for All"' Program or SSA is the single largest Elementary Education program in the world. Launched in 2001-02, this was the umbrella program for

the Universalization of Elementary Education (UEE) through a time-bound approach, in partnership with the state. This centrally sponsored scheme aimed to provide community-owned quality elementary Education to all children in the age group of 6-14 years by 2010. Elementary Education in India became a constitutional right after enactment of the Right to Education Act, which was passed by the parliament in 2009 and came into force from April 2010. The act states that every child in the age group of 6-14 years has the right to free and compulsory education. In April 2018, the Ministry of Human Resource Development merged three flagship schemes funding public school education in India into one umbrella scheme called the Samagra Shiksha. Until then, the Sarva Shiksha Abhiyan had been funding elementary education, the RashtriyaMadhyamik Shiksha Abhiyan was aimed at secondary education and Teacher Education at teacher training. Through the newly designed unified scheme, the Union government aims to achieve quality learning through a holistic focus on school education from the pre-primary to the higher secondary levels.

Constitutional Provisions for elementary education: The Indian Constitution accords special significance to the universalization of access to Elementary Education in its Directive Principles of State Policy (Part IV of the Constitution). ***Article 45*****:** The state shall endeavor to provide within 10 years from the commencement of the Constitution free and compulsory primary education for all children until they complete the age of 14 years.

These provisions covered the pre-primary and elementary age group and were a result of laborious intervention from time to time over a century (1882-1992), for free and compulsory education. In this regard, 14 states and 4 Union Territories passed compulsory Primary Education Acts (Juneja, 2003).

Despite continuous concerted efforts in this direction, it was only in 1997 that the provisions under these Directive Principles were amended by the 83rd Constitutional Amendment that led to the insertion of Article 21(A) and the 93rd Amendment bill in 2001 that restructured Article 45. Finally, the historic 86th Constitutional Amendment was passed in 2002 that made Elementary Education a justiciable fundamental right. This initiated the process of determining the manner that the state would provide free and

compulsory education to all children aged 6-14 years. The follow-up legislation called '*The Right of Children to Free and Compulsory Education Act, 2009'* or the Right to Education (RTE) Act, 2009 was notified in late August 2009 and was enacted on the 1st of April 2010.

Article 45 (Restructured): "The state shall endeavor to provide early childhood care and education for all children until they complete the age of six years". ***Article 21(A):*** "The state shall provide free and compulsory education to all children of the age of 6-14 years in such a manner as the State may, by law, determine."

Hence, the status of Elementary Education is strengthened by being protected by our Constitution. In line with fulfilling the provisions promised by the constitution, the Government of India (GoI) started various programs and projects in a phased manner to enhance the access, coverage, and quality of Elementary Education.

2.3 Project-based initiatives to improve access and coverage of elementary education

The government has also taken several initiatives over the years to support the target of universalizing education at the basic level, wherein a brief overview has been put forth in this section to revisit some of these initiatives taken by the government.

Andhra Pradesh Primary Education Project (APPEP): This project was undertaken in cooperation with the British government in 1983, in eleven districts (330 schools) in the state of Andhra Pradesh (Agrawal, Usmani, 2000). The project recognized the value of competent teachers and emphasized on the enhancement of teaching-learning processes by specifically designed pedagogy programs. As a result, a positive shift in teaching approach was seen resulting in substantial improvements in attendance among girls.

Shiksha Karmi Project (SKP): In 1987, this program was started in Rajasthan with funding from the Swedish International Development Agency (SIDA), aimed at reducing teacher absenteeism from schools. It spread over 2697 villages covering a population of 761000. The novel strategy adopted to achieve this aim was the appointment of a local teacher called Shiksha Karmi who would effectively reach out to every child in his

community. This project led to the constitution of Village Education Committees (VECS) to encourage Village level planning. The resultant was that 83 percent of children aged between 6-14 years in these SKP villages, were enrolled in the education system.

Bihar Education Project (BEP): With the aim of illiteracy reduction and UEE in the age group of 6-14 years focusing on the girl child, this project was launched in 1991 in 7 districts of Bihar. The project was funded externally by the UNICEF and focused on universal access, universal participation, and universal achievement. Community mobilization, establishment of Non-Formal Education (NFE) centers, and establishment of people based structures like VECS and MahilaSamoohs were the main strategies adopted in achieving the goals. This project was later subsumed with the District Primary Education Program (DPEP) in 1994 and its coverage was expanded.

Lok Jumbish: Literally meaning, "People's movement for Education", this project was initiated in Rajasthan in 1992 with assistance from SIDA. Community involvement is the key strategy, this project sought to sensitize people's groups like the VECS, Core Teams, and Women's' groups towards the educational status and issues of their places. To improve their capacities to act as facilitators in educational development, microplanning was started. LokJumbish aimed at providing access to primary education to all children, pursuing the goal of equity in education by enrolling and retaining all children in school. It focused on gender equity and women empowerment. This project was successful in creating a learning environment in an educationally backward state.

Uttar Pradesh Basic Education Project (UPEP): The International Development Association (IDA)-World Bank in 1993 financed a project in Uttar Pradesh that aimed at universal enrolment and retention up to Upper Primary level of education. Decentralization was the key strategy adopted for the same and Block Resource Centres (BRCS) for teacher training were set-up. A major exercise of school mapping was undertaken and norm-based planning for access to schools was started. It was envisaged to make provisions for a primary school within 1.5 Kms distance from a habitation of 300 or more population and an Upper Primary school within 3 Kms of a habitation having a population of 800 or more.

District Primary Education Programme (DPEP): In 1994, a phased program was launched in 42 districts spread over 7 states in India. This program was taken up to improve education in low literacy districts across India, and where female literacy was lower than the national average of 38 percent. It was extended to 219 districts in 15 states in the second phase in 2000. This was the single largest development program for primary education in India intended to improve equity in access and achievement. The DPEP was a centrally sponsored scheme with a substantial share of funding from external sources. The objectives of the program were to provide access to all children to primary education through formal primary schools or its equivalent through alternatives, to reduce overall dropouts at the primary level to less than 10 percent, to increase achievement levels by 25 percentage points over and above the measured baseline levels, and to reduce disparities of all types to less than 5 percent.

The DPEP was an attempt of decentralization i.e. to initiate a process of planning from below. The framework of the program envisaged initiating and completing the process of planning first at the district level. The state-level intervention strategies and plans were meant to facilitate the successful implementation of the district plans. It aimed to be a realistic program where planning competencies would be developed at the district level and participatory planning facilitated. The local level bodies like the Panchayat, Parent-Teacher Associations (PTAs), Teacher Unions, Village Education Committees (VECS), and educational functionaries at the local level were to be consulted to evolve a plan that could be owned by the local people (Varghese, 1994). This program explored effective linkages with the people who made the plan and the people who were to be benefitted by it. States like Rajasthan benefitted a lot by DPEP II where the total access to education increased dramatically and as a resultant, total enrolment in the 6-11 age group increased by 27 percent between 2001-02 to 2007-08, the gender gap decreased and drop-outs decreased from 60 percent to 27 percent.

Sarva Shiksha Abhiyan (SSA): "Education for All"' Program or SSA is the single largest Elementary Education program in the world. Launched in 2001-02, this was the umbrella program for the Universalization of Elementary Education (UEE) through a time-bound approach, in partnership with the state. This centrally sponsored scheme aimed to provide

community-owned quality Elementary Education to all children in the age group of 6-14 years by 2010. Specific time-bound objectives entailed: Back to School Campaign by 2003, Universal Primary Education (UPE) by 2007, bridging gender (education of SC/ ST girls) and social gaps (SC, ST, linguistic and religious minorities) by 2007 for primary and 2010 for elementary level and universal retention by 2010. SSA envisages making UEE a reality through strategic interventions like institutional reforms, institutional capacity building, sustainable financing, community ownership, administrative reforms, and community-based monitoring and accountability. The coverage of this program extends to the entire country. Since 2001, the program has succeeded in bringing nearly 20 million children into elementary schools. Unfortunately, UEE has not been achieved in India till date, the second phase of SSA, called SSA II (effective from October 2008) aims at bringing the remaining 10 million out-of-school children into the school, improving the quality of teaching-learning and focuses on improving retention, so that all children complete eight years of Elementary Education. It is through these concerted efforts that the status of Elementary Education in India has undergone phenomenal expansion in terms of access and coverage. Various databases like the Statistics for School Education (MHRD) and the Unified District Information System for Education (NIEPA) reiterate the same.

The Elementary Education is provided by the government, government-aided as well as non- government bodies (including private bodies and local schools). However, the government schools are the major providers of Elementary Education in the country with62.85 percentage share at the Primary level and 57.32 percentage share at the Upper Primary level of schooling Along with universalizing enrolment of children in elementary schools, an added focus now is to enhance the quality of elementary education in the Country.

Samagra Shiksha: In April 2018, the Ministry of Human Resource Development merged three flagship schemes funding public school education in India into one umbrella scheme called the Samagra Shiksha. Until then, the Sarva Shiksha Abhiyan had been funding elementary education, the Rashtriya Madhyamik Shiksha Abhiyan was aimed at secondary education and Teacher Education at teacher training. Through the newly

designed unified scheme, the Union government aims to achieve quality learning through a holistic focus on school education from the pre-primary to the higher secondary levels.

Among the reasons for introducing the scheme is growing policy concern that students in government-run schools have not been able to acquire the knowledge or the skill sets they are expected to have in their grades. As per the Samagra Shiksha framework, a key approach to achieving quality education is by introducing efficiency in the processes through which the activities under the scheme are managed and executed. It also means laying out clear routes of accountability at every level of governance. The unified scheme hopes to realize the optimal utilization of both physical and human resources. While physical resources refer to office spaces and infrastructure under the three schemes, human resources consist of officials and support staff. The framework also emphasizes harmonizing different initiatives for elementary and secondary education and talks about flexibility to states so they can prioritize elementary or secondary education depending on their needs.

2.4 Changing Landscape of Elementary Education in India

The progress made in getting children in the age group of 6 to 14 years has been phenomenal and this is an outcome of the considerable efforts made in the last few decades. In the year 1950, there were over 210 thousand primary schools and 14 thousand upper primary schools. The figures as given in table 2.1 reflect that the numbers have now reached 842 thousand primary schools and 642 upper primary schools respectively in 2017-18. Over 97 percent of the habitations have access to primary schooling facilities within a walking distance of 1 km as compared to over 96 percent habitations to upper primary schooling facilities within a walking distance of 3 km from the habitation. The enrolments both at the primary and upper levels of education have increased significantly, wherein India had about 19 million children enrolled in 1950-51 and there were over 187 million children enrolled at the elementary level in 2017-18.

Table 2.1: Status of Elementary Education in India: 2017-18

Primary Level (I-V)	GER	94.21
	NER	82.53
	GPI(GER)	0.92
	Drop-Out Rate	3.51
Upper Primary Level (VI-VIII)	GER	90.90
	NER	72.62
	GPI(GER)	0.94
	Drop-Out Rate	5.02
Elementary Level (I-VIII)	GER	93.03
	NER	79
	GPI(GER)	0.93

Source: U-DISE, 2017-18

The Gross Enrolment Ratio (GER) has also increased to 93.3 at the elementary level, with a higher proportion of males enrolled as compared to females. Although there is an improvement in the retention rates the dropout rates still exist at 3.5 and 5 percent respectively at the primary and upper primary levels. Although a lot has been achieved one of the challenges that still come is the learning levels attained by students and this is an issue is visible across all the states.

Table 2.2: Status of Performance Indicators in India: 2017-18

Elementary Education	India
Total Number of Primary Schools	842295
Total Number of Students at Primary Level	122378400
Total Number of Upper Primary Schools	642802
Number of Students at Upper Primary Level	65448222
Number of Students at Elementary Level	**187826622**

Source: U-DISE, 2017-18

In continuation of the above, the study plans to dwell deeper into the existing levels of educational access and participation across the different states of India and further identify the exiting regional disparities.

2.4.1 Access to Schooling Provisions

Access is a supply-side concept and is termed into several spheres such as Physical Access, Social Access, and Economic Access. So it is extremely important to understand schooling provisions in all aspects i.e. physically, socially, and economically in inclusive nature. Physical accessibility is one of the crucial factors which has a bearing on the ability of the population to avail itself of the schooling facility. If schools are so

located that they are not within negotiable walking distance from the place of habitation, they cannot effectively serve the population they are meant for.

Accessibility is a significant parameter in any activity which involves movement in space. It implies the relative ease, or difficulty, in negotiating the distance between the two given points within which movement is likely to take place. Places, or regions, which are inaccessible, or relatively inaccessible, remain generally isolated from the thrust of movement which takes place normally between accessible areas and which brings about a sequence of changes in the realm of ideas through the flow of goods and of people. Accessibility, therefore, determines the pace of change over time and is an instrument of differentiation between Segments of space characterized by varying degrees of geographical isolation or otherwise.

Accessibility to the institutions of learning, such as schools and colleges, is likewise an important criterion in adjudging their efficiency and availability to the population intended to be served by them. The attribute of accessibility flows directly from the decision to locate a school or a college at a site vis-a-vis the residential location of the population to be served. Receiving formal education imparted in institutions of learning on a collective basis implies the daily movement of student population between the Centre of residence and the Centre's of learning, such as schools or colleges. Such a movement may be unimportant in urban areas where alternative modes of transport are available and where institutions of learning are located within the settlement. However, the location of these institutions in rural areas has a crucial bearing on their usability by the population intended to be served. There is an outer limit beyond which it is not physically feasible for children of different age-groups to travel. The optimal negotiable distance is, therefore, dependent on the age of the child, the type of the terrain, and the climatic conditions of the locality. Given these constraints, the concept of linear distance may be seen in terms of the relative, and not absolute, sense (Raza, Ahmad, and Nuna, 1990).

With the vastness of India and the variations in physiographic conditions at the sub-regional level, the meaning of accessibility is bound to acquire different nuances of meaning in different regions of the country. The distance of one kilometer in the plains,

for example, will have a meaning entirely different from that in areas of hilly terrain or thick forests. While the plain areas are generally considered to offer a little obstacle to human movement, movement in the hills is restricted by the degree of slope and the complexity of relief up and down the ridges and the Valleys.

This implies that the concept of Physical access refers to schools that enable the student population to avail of schooling provisions. In the present study, access would mean the availability of Elementary schooling provisions within prescribed norms. Also, it would mean access to educational facilities provided within these schools. For instance, infrastructure facilities like a proper building, an adequate number of classrooms, academic facilities like laboratories, teachers, and other essential facilities (drinking water, electricity, proper sanitation, etc.). Appropriate indicators, developed on the nature of data available, have been used to assess the status of access to primary and Upper-Primary schooling provisions and access to educational facilities in Elementary schools.

The dictionary meaning of geographical access indicates the ability to reach a particular place from another place. These two ends in this study are; children and primary school or specifically, the location of the school and location of the habitation where the students reside. Geographical accessibility to schools is related to three variables location of schools, location of habitations, and intermediated road network. Several studies have revealed the negative link between the remoteness of habitations and educational development (Duflo, 2001; Jalan and Glinskaya, 2003; Filmer, 2007). Worldwide, there are millions of people who do not have access to basic services and education, which comes from having a higher degree of accessibility and mobility (Shyam, 2007). Geographical distance to school is cited as a major barrier to the schooling of rural children in India (UNICEF, 2006; Ward, 2007). The time and the physical discomfort especially in hot summers and monsoons involved in accessing schools cannot be used either for productive activities or leisure (Mukherjee, 2011). Therefore, the basic question is: how far does a child travel to access good schooling.

Access to Elementary Schooling provisions has been analyzed under the density of available schooling facilities according to the areas of the states and population, this is also followed by habitation wise accessibility to Primary and Upper-Primary schools in

the indifferent states to assess the access situation as a key element to the universalization process.

Accessibility to Schooling Provisions: Table 2.3 below gives us the accessibility to schooling provisions which is represented by the population that is served by each school and the second measure is the density of schools wherein areas served by each school were taken. Data from two time periods 0f 2005-06 and 2016-17 was analyzed to see the progress made inaccessibility to basic schooling provisions at the Elementary level.

The data of the population served by each school represented that there was one school available for a population of 9 21 persons in 205 which improved to 825 persons. The density of schools available has also significantly improved over the years with 2.9 schools available per sq.km. in 2005-06 which improved to 2.2 schools being available Per sq. km. All the states have also represented an improved availability of schooling provisions, except Andhra Pradesh, that may be due to the formation of Telangana and the change in the administrative boundaries affecting the population size.

Table 2.3 State-wise status of Accessibility of schooling Provisions, 2006 & 2017

States	2005-06		2016-17	
	Population served by each school	Area Served by each school (Sq. Km)	Population served by each school	Area Served by each school (Sq. Km)
Andhra Pradesh	797	2.9	1375	4.5
Arunachal Pradesh	363	27.9	344	20.8
Assam	663	2.0	471	1.2
Bihar	1541	1.8	1287	1.2
Chhattisgarh	409	2.7	499	2.6
Delhi	3036	0.3	2931	0.3
Goa	1000	2.8	1005	2.5
Gujarat	1367	5.3	1357	4.4
Haryana	1558	3.3	1115	1.9
Himachal Pradesh	381	3.5	377	3.1
Jammu and Kashmir	521	11.5	437	7.7
Jharkhand	744	2.2	707	1.7
Karnataka	978	3.6	985	3.1
Kerala	2828	3.5	2029	2.4
Madhya Pradesh	500	2.6	506	2.1
Maharashtra	1199	3.8	1071	2.9
Manipur	622	5.8	588	4.6
Meghalaya	284	2.8	224	1.7
Mizoram	354	8.4	357	6.9
Nagaland	791	6.6	705	5.9
Orissa	712	3.0	609	2.3
Punjab	1197	2.5	966	1.8
Rajasthan	599	3.6	650	3.2

Sikkim	493	6.5	464	5.4
Tamil Nadu	1204	2.5	1244	2.2
Tripura	899	3.0	756	2.2
Uttar Pradesh	1037	1.5	786	0.9
Uttaranchal	463	2.9	426	2.3
West Bengal	1359	1.5	947	0.9
INDIA	921	2.9	825	2.2

Source: Census 2001, 2011 and UDISE 2005 and 2016

Distance Norms governing Access: The access norm as mandated by RTE Act is to ensure that all children have access to a primary school within one km of their habitation, and all children have access to an upper primary school within three kilometers of the habitation. There are various state-level modifications in the RTE norm prevailing in different states, such as in West Bengal, where the area or limits of the neighborhood within which a school has to be established by the State Government shall be 1 km for primary schools and 2 km for upper primary schools in rural areas where there is no bar to having more than one primary school within the radius of 1km from the habitation provided it is justified in terms of accessibility and need-based requirement (Kolkata Gazette, Extraordinary, March 2009). The maximum number of student strength shall not exceed 300 for a primary school and 500, for an upper primary school. The implementation of this policy depends on the residential patterns and geographical accessibility of the area.

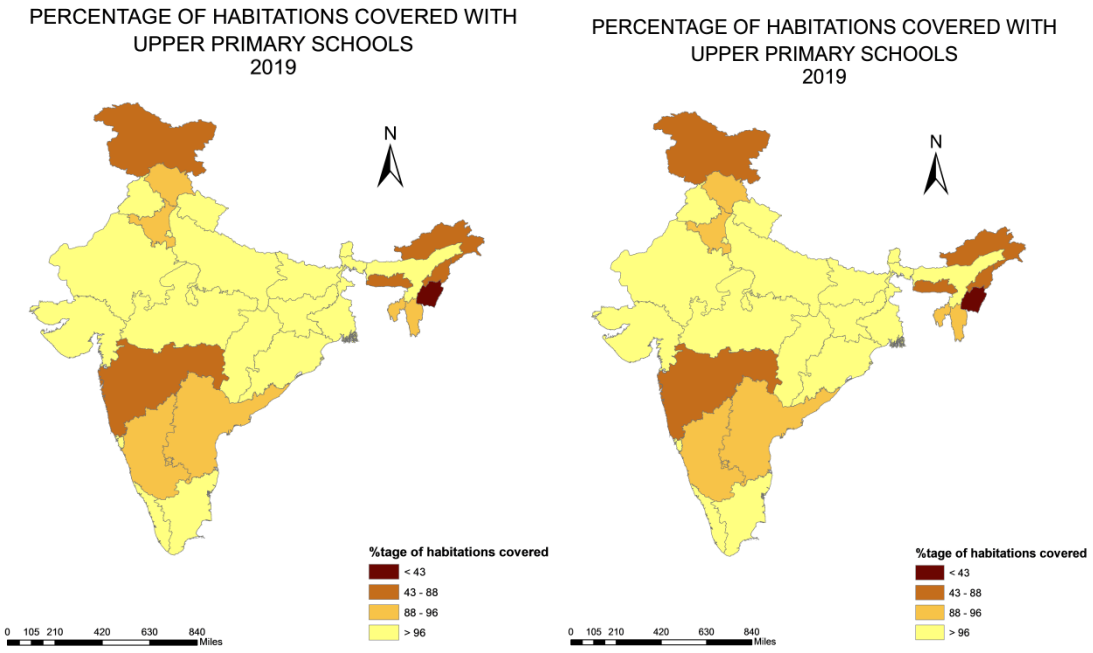
Different states have norms for access to primary schooling facilities in consonance with the RTE Framework. However, only distance norms have been set for the providence of primary and upper-primary schools. No population norms for the habitations have been specified for the same. Also, these norms cannot be applied to the whole of the state because of the uneven terrain and low-density population areas. This is the reason that many habitations in different districts in different states are not eligible for primary and upper primary schooling provisions.

Habitations Covered with Schools: Access being a supply-side concept that refers to the physical access to schools that enables the student population to avail schooling provisions. In the present study, access would mean the availability of Elementary schooling provisions within prescribed norms. Also, it would mean access to educational facilities provided within these schools. For instance, infrastructure facilities like a proper

drinking water facility, availability of electricity, Computer, Girls toilet and availability of Ramp, etc. Appropriate indicators, developed on the nature of data available, have been used to assess the status of access to primary and Upper-Primary schooling provisions and access to educational facilities at the Elementary level.

Figure 2.1 shows the status of habitations covered with Primary and Upper Primary Schools. It is evident from the data that there is a lot of variation that exists among states and it also varies at two different educational levels i.e. primary and Upper Primary level of Education. Overall, 97.15% habitation is covered with Primary Schools and 96.49% with upper primary Schools at the national level. Further looking into detail through two different educational levels i.e. primary and Upper primary, it can be analyzed which all states still need to work upon provision of accessibility of primary and upper Primary Education in their respective states. Provision of primary and upper primary schools especially in rural areas is extremely important for achieving universalization of elementary education through bringing in every child under the 6-14 age group in the school system.

Figure 2.1 Status of Habitations Covered with Primary &Upper Primary Schools

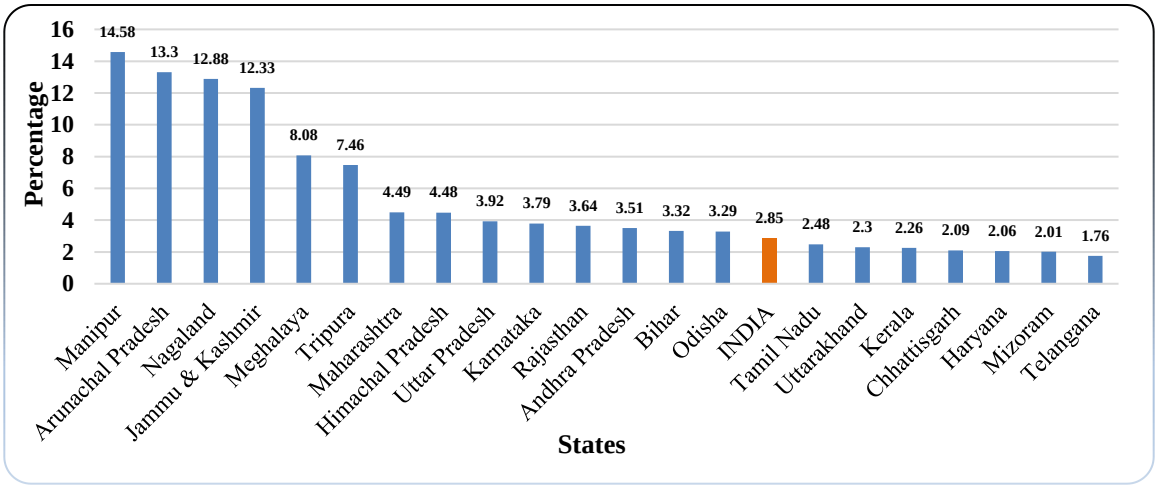


Source: Map Prepared on ArcGIS from RMSA Data, MHRD 2019

Habitations not covered with Schools: Apart from accessibility being in physical access to schools that enable the student population to avail schooling provisions, some habitations are uncovered with the availability of Elementary schooling provisions within prescribed norms. Similarly, other educational facilities fail to reach out to the habitations as well. For instance, infrastructure facilities like a proper drinking water facility, availability of electricity, Computer, Girls toilet and availability of Ramp, etc. Some regions and states have an ample amount of habitations that are uncovered with primary and upper primary schooling provisions.

As shown in figure 2.2, India has covered almost all habitations in different states/UTs with primary schools. Status of habitations covered with primary Schools differs in different states/UTs. There are 9 states/UTs that have 100% coverage with primary Schools whereas there are many other states/UTs which still lag behind and still have to achieve 100% coverage. There are States/UTs which still have uncovered habitations of primary level of education like Manipur (14.58%), Andaman & Nicobar Islands (13.64%), Arunachal Pradesh (13.3%), Nagaland (12.88%), and Jammu & Kashmir (12.33%).

Figure 2.2 State/UT-wise Status of Uncovered Habitations with Primary Schools

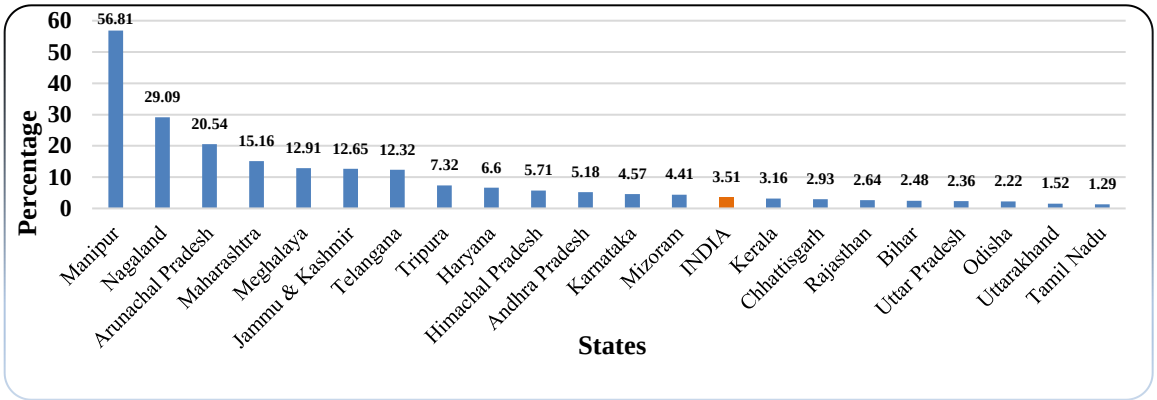


Source: RMSA, MHRD, 2019

Figure 2.3 shows the coverage of habitation with Upper Primary Schools in all the states. Habitations covered with Upper Primary Schools are much different then what is seen at the national level, there are as many as 8 states/UTs i.e. Chandigarh, Dadra &

Nagar Haveli, Daman & Diu, Delhi, Goa, Lakshadweep, Puducherry, and Sikkim that have 100% coverage with Upper Primary Schools. Apart from that, Andaman & Nicobar Islands and Manipur have the lowest coverage as mere 39.14% and 43.19% respectively whereas other states/UTs are also lagging in achieving 100% coverage like Nagaland (70.91%), Arunachal Pradesh (79.46%) and Maharashtra (84.84%).

Figure 2.3 State/UT-wise Status of Uncovered Habitations with Upper Primary Schools



Source: RMSA, MHRD, 2019

2.4.2 Availability of Schooling provisions

Although it is the onus of the government to provide the society and community at large with the basic educational provisions, not all schools are managed by the government. Different organizations and bodies that may or may not be under the government, run and manage the Indian schooling system that comprises of more than 1.55 million schools with over 260 million students (U-DISE, 2017-18). These number also makes India the second-largest schooling system after china in the world. Education in India, therefore, is imparted in different kinds of institutions, which are managed by the government of India, State Governments, Tribal Welfare Boards, Private Aided Institutions, Private Un-Aided Institutions, and Madrasa Boards, etc. These can overall be classified into three categories based on the type of Management and funding mechanism as Government or Public Schools: These schools are owned by the government and government is the major funding agency here. The second is the Private Unaided schools: These are the schools that charge fees and are owned by private stakeholders and lastly Private- Aided Schools- these schools are managed privately and receive government recurring grants (teacher's Salary) and follow the same curriculum and administrative

regulations as public schools. Schools at different levels within varied management structures share a different proportion of schools. Figure 2.4 and Figure 2.5 shows the total number of elementary schools and Secondary Schools in different states respectively.

Figure 2.4 Total Number of Elementary Schools

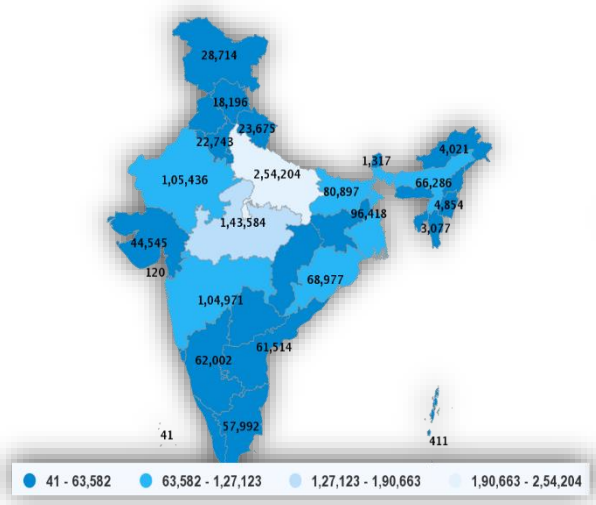
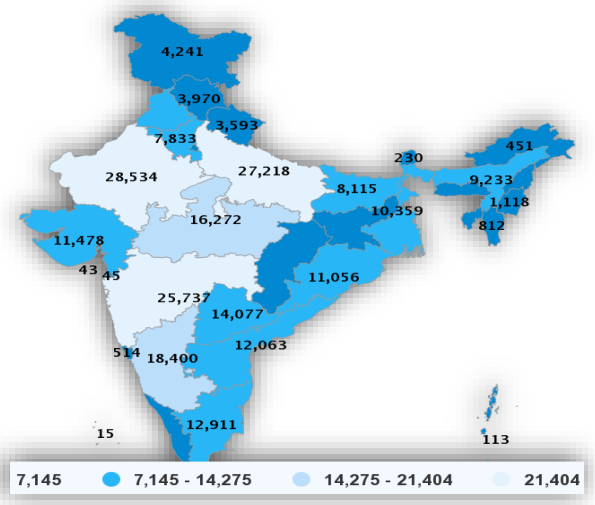


Figure2.5 Total Number of Secondary Schools



Source: U-DISE, 2016-17

2.4.3 Growth in the Number of Schools in India

India has witnessed a continuous rise in the number of schools whether being primary schools, upper primary schools, or secondary schools since 1950. Table 2.4 shows the growth in the number of schools from 1951 to 2018 at primary, upper primary, elementary and secondary levels of education. India has seen an increase in the number of schools with the differing growth rate over various decades from 1950 onwards.

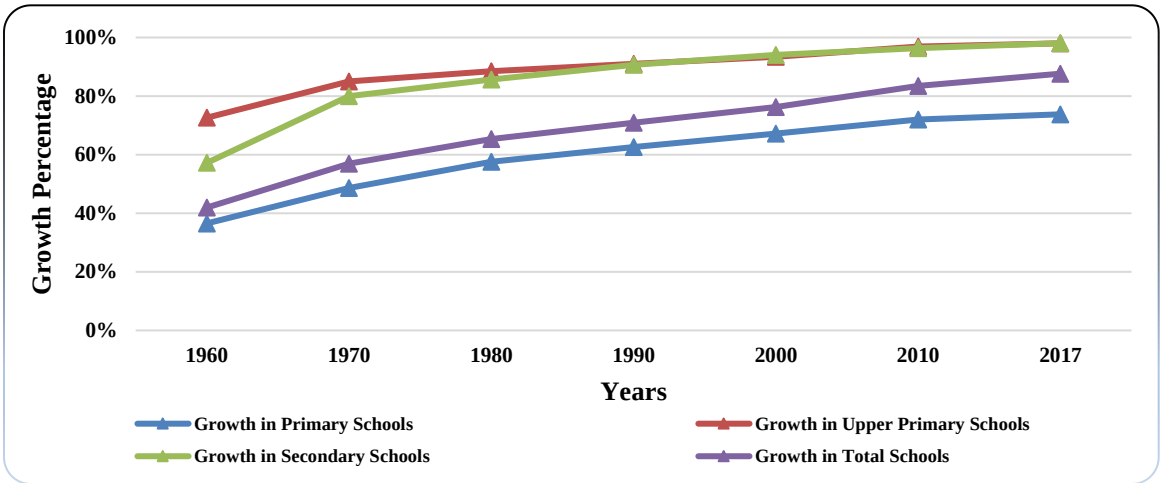
Table 2.4 Number of Schools, 1951-2018

Year	Primary Schools	Upper Primary Schools	Elementary Schools	Secondary Schools	Total Schools
1950-51	209671	13596	223267	7416	**230683**
1960-61	330399	49663	380062	17329	**397391**
1970-71	408378	90621	498999	37051	**536050**
1980-81	494503	118555	613058	51573	**664631**
1990-91	560935	151456	712391	79796	**792187**
2000-01	638738	206269	845007	126047	**971054**
2010-11	748547	447600	1196147	203261	**1399408**
2017-18	**799728**	**685369**	**1485097**	**383535**	**1558903**

Source: Statistics of School Education, MHRD & U-Dise, NIEPA

Figure 2.6 shows the trend of the percentage growth in the number of schools from 1950 till 2017. The first decade after independence showed the highest expansion of schools in the country with a decadal growth rate of 42% for the year 1950-60.

Figure 2.6 Percentage Growth of Schools, 1951-2017



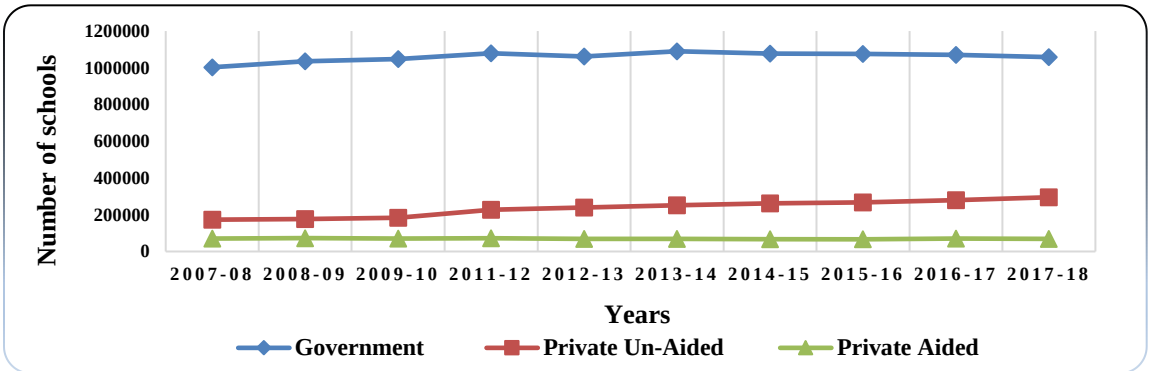
Source: Statistics of School Education, MHRD & U-DISE, NIEPA

Since 1950, the growth of schools shows a continuous upward trend, its growth has varied in different decades but shows a continuous upward trend in Primary schools, Upper Primary schools, Secondary schools, and overall total Schools. After the first decade, the trend shows a slow pace of growth until the 1990s with a bit slower pace of expansion of schools in the country whereas the pace again gained momentum in the very next decade until 2010 but growth continued to move upward. The growth rate has a declining trend after the year 2010 with a slow pace of expansion of schools and mergers of schools after 2014 in various states. Whereas the trend line of Secondary school shows a high growth rate since the 1980s with an overall continuous upward trend since the 1950s.

Schools by Management: Education in India, therefore, is imparted in different kinds of institutions, which are managed by the government of India, State Governments, Tribal Welfare Boards, Private Aided Institutions, Private Un-Aided Institutions, and Madrasa Boards, etc. These can overall be classified into three categories based on the type of Management and funding mechanism as Government or Public Schools, Private Un-Aided schools, and Private- Aided Schools- these schools are managed privately and

receive government recurring grants (teacher's Salary) and follow the same curriculum and administrative regulations as public schools. Schools at different levels within varied management structures share a different proportion of schools. Figure 2.7 shows the growth in the number of schools by management from 2008 to 2018.

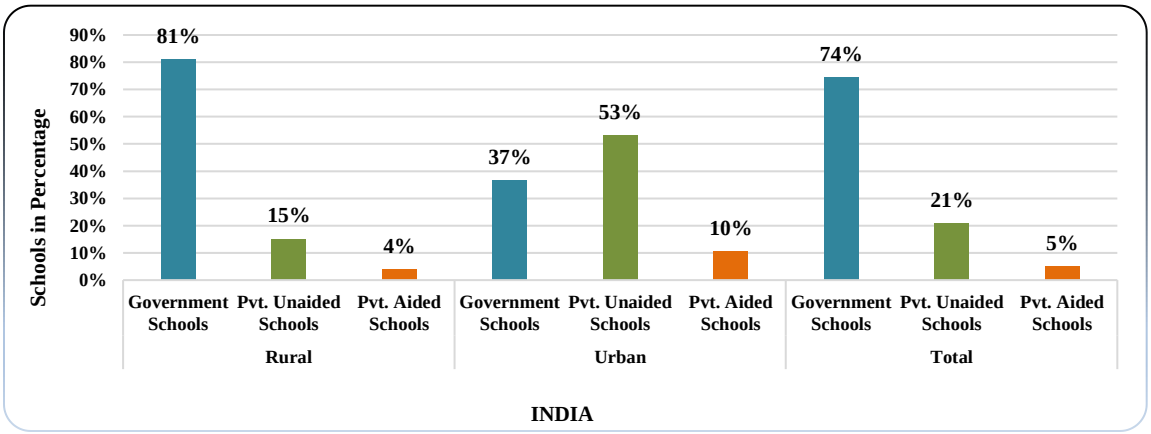
Figure 2.7 Growth in Number of Schools by Management, 2008-2018



Source: Researcher's calculation using U-DISE data, 2017-18

Figure 2.8 shows the management-wise distribution of schools in three different spheres i.e. Rural Schools, Urban Schools, and overall Total schools. Management-wise distribution of schools varies in Rural, Urban, and overall total in schools percentage share. In rural schools, Government schools (81%) are having a major share, whereas Private schools (15%) are relatively less in numbers and Private aided schools number just remains to be 4%. This scenario changes in Urban Schools, as it is private schools that have a high percentage share among all as it increases from 15% in rural areas to 53% in urban areas.

Figure 2.8 Management-wise distribution of Schools



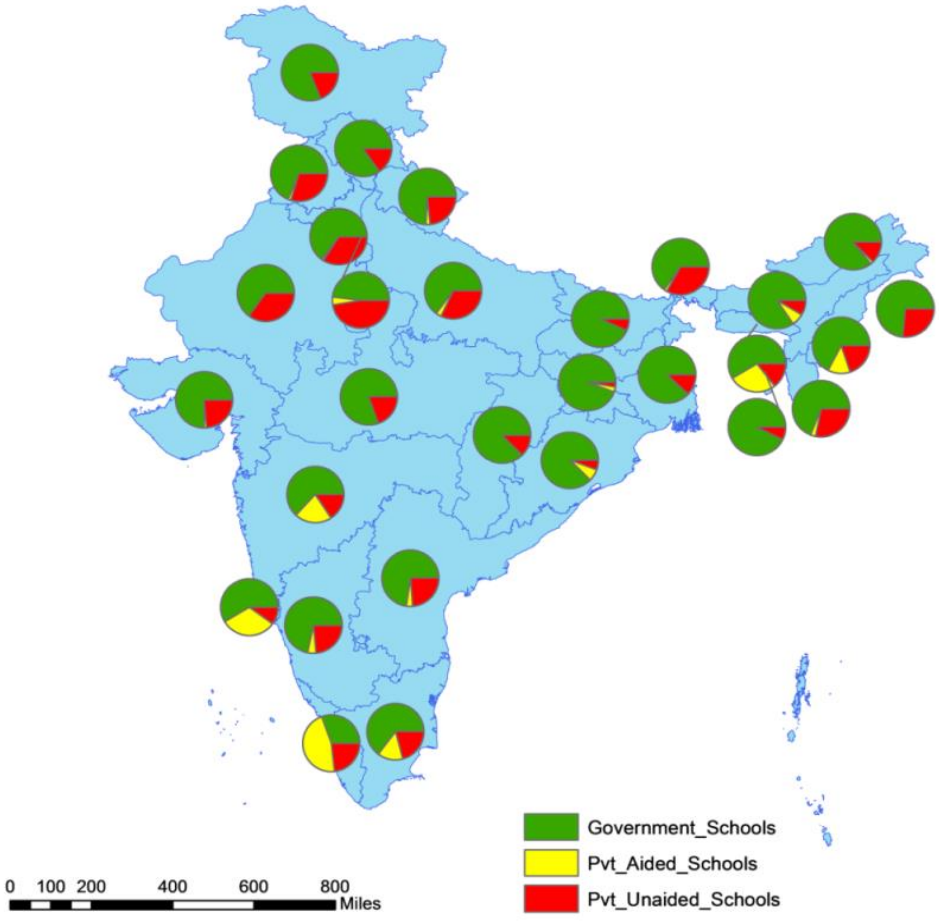
Source: Researcher's calculation using U-DISE data, 2017-18

Government schools share dips down to 37% in urban areas from 81% in rural areas. Whereas, the share of Private aided schools also increases from 4%in rural areas to 10% in urban areas. It is extremely important to know why so much private and private aided Schools are active in urban areas and not in rural areas. Reasons may be various and there may be various factors governing the private and private aided schools prevailing much in numbers in various urban areas and lack of it in rural areas. Have private players considered education as a for-profit motive by being so dominant in urban centers catering to self-greed than need? Overall, India shows a similar trend, as it shows in rural area schools, with government school having a percentage share of 74%, Private Schools 21%, and Private Aided Schools (5%). Whereas, this percentage share varies in different states apart from just prevailing variation in rural and urban area schools.

Overall, management wise distribution of elementary Schools is majorly dominated with Government School with a percentage share of 74% whereas the share of Private schools is 21% and Private Aided schools have a mere 5% share as shown in figure 2.9. India's development of the schooling system since the 1950s can be seen largely in terms of expansion after national education policy 1968, villages with no school started getting school facilities within the radius of one kilometer. Provision of government schools had been enabled with a focus to fill the gap of disparities in education between rich and poor, between rural and urban, between male and female, and provide maximum possibilities to get an education through government schools with minimum expenditure. Whereas the slow growth of private schools has also made significant improvement in its expansion especially in urban centers and Private aided schools have been growing since Mudaliar Commission as a means towards an approach for the expansion of schools via private aided schools along with government schools. The scenario of percentage share as seen at the national level doesn't remain the same at the state level. Few states have a pretty high share of schools other than government schools. States/UTs like Kerala (46%), Goa (31%), Meghalaya (27%), and Tamil Nadu (15%) have a high share of Private Aided School. Whereas, there are states/UTs like Delhi (47%), Puducherry (39%), Rajasthan (35%), Haryana (34%) and Sikkim (33%) which have relatively high percentage share of Private Unaided Schools.

Overall, India has 74% of Government schools, 21% of Private-Unaided Schools, and 5% of Private-Aided Schools. As shown in figure 2.10 distribution of schools at the elementary level within different management criteria has a different scenario in different states. There are government schools, private unaided schools, and private aided schools in differing proportions in all states. States/UTs like Lakshadweep (100%), Jharkhand (95%), Bihar (93%), Tripura (92%), Odisha (88%), and West Bengal (88%) have highest percentage share of Government schools among all management schools whereas states/UTs like Kerala (30%), and Delhi (48%) are having the lowest percentage share of Government schools.

Figure 2.9 Management-wise Proportion of Schools



Source: Researcher's Map Prepared on ArcGIS from U-DISE Data, 2017-18

In terms of Private schools, there are various states/UTs having a percentage share of more than 30% like Delhi (47%), Puducherry (39%), Chandigarh (38%), Rajasthan

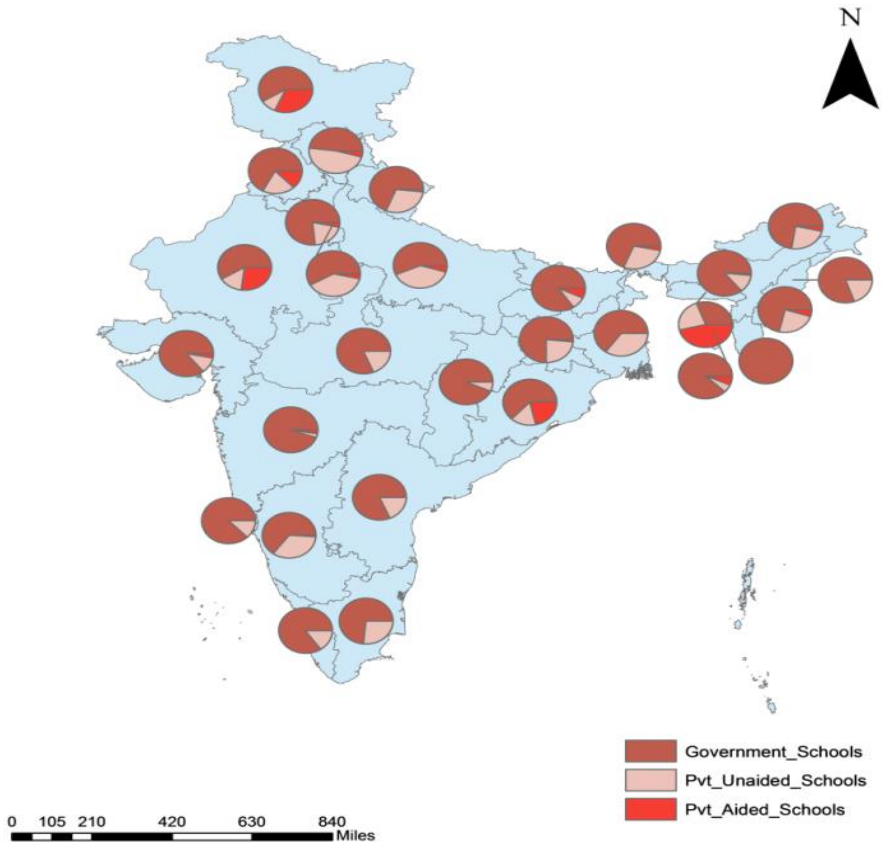
(35%), Haryana (34%), Sikkim (33%), Uttar Pradesh (32%), and Punjab (30%) whereas there are various other states/UTs which have considerably very low percentage share of Private schools as of below 10% like Lakshadweep (0%), Jharkhand (3%), Odisha (6%), Tripura (7%), Assam (9%), and Goa (10%). Other than private schools, there are various Private Aided Schools that have a decent share in various States/UTs. Kerala is on the top having 46% share of Private Aided Schools followed by other States/UTs having double-digit percentage shares like Goa (31%), Meghalaya (27%), Maharashtra (21%), Tamil Nadu (15%), and Manipur (13%) whereas there are seven States/UTs that have none percentage share (0%) of private Aided Schools like Andaman & Nicobar Islands, Bihar, Himachal Pradesh, Jammu & Kashmir, Lakshadweep, Nagaland, and West Bengal.

Table 2.5 Management-wise Schools Categorization of States

	GOVERNMENT SCHOOLS		PRIVATE SCHOOLS		PRIVATE AIDED SCHOOLS	
HIGH	(>80%)	Lakshadweep, Jharkhand, Bihar, Tripura, West Bengal, Odisha, Chhattisgarh, Arunachal Pradesh, Dadra & Nagar Haveli, Himachal Pradesh, Assam, Jammu & Kashmir, A & N Island, and Madhya Pradesh	(>30%)	Delhi, Puducherry, Chandigarh, Rajasthan, Haryana, Sikkim, Uttar Pradesh, and Punjab	(>10%)	Kerala, Goa, Meghalaya, Maharashtra, Tamil Nadu, and Manipur
MEDIUM	(60-80%)	Daman & Diu, Gujarat, Uttarakhand, Nagaland, Andhra Pradesh, Karnataka, Telangana, Mizoram, Punjab, Manipur, Sikkim, Rajasthan, Uttar Pradesh, Haryana, Tamil Nadu, and Maharashtra	(10-30%)	Goa, Dadar & Nagar Haveli, West Bengal, Arunachal Pradesh, Chhattisgarh, Meghalaya, Himachal Pradesh, Maharashtra, A & N Island, Jammu & Kashmir, Madhya Pradesh, Manipur, Daman & Diu, Tamil Nadu, Kerala, Uttarakhand, Karnataka, Gujarat, Andhra Pradesh, Nagaland, Telangana, and Mizoram	(0-10%)	Madhya Pradesh, Chhattisgarh, Tripura, Haryana, Gujarat, Arunachal Pradesh, Sikkim, Punjab, Telangana, Uttarakhand, Jharkhand, Mizoram, Dadra & Nagar Haveli, Uttar Pradesh, Daman & Diu, Chandigarh, Andhra Pradesh, Delhi, Puducherry, Karnataka, Odisha, and Assam
LOW	(<60%)	Meghalaya, Goa, Chandigarh, Puducherry, Delhi, and Kerala	(<10%)	Lakshadweep, Jharkhand, Odisha, Tripura, Bihar, and Assam	(0%)	A& N Islands, Bihar, Himachal Pradesh, Jammu & Kashmir, Lakshadweep, Nagaland, and West Bengal

Source: Researcher's calculation from U-DISE data, 2017-18

Figure 3.10 Management-wise Proportion of Rural Schools



Source: Researcher's Map Prepared on ArcGIS from U-DISE Data, 2017-18

Management wise schools in rural areas have different percentage share, as Government schools, Private aided and unaided schools in rural areas spread over all states. India in Rural areas has 81% of Government schools, 15% of Private-Unaided Schools, and 4% of Private-Aided Schools. As shown in figure 2.11 states/UTs having high percentage share of Government schools like Lakshadweep(100%), Bihar(96%), Jharkhand(96%), Chandigarh(94%), and Tripura(93%) whereas several states have low percentage share of government schools like Kerala(31%), Meghalaya(60%), Puducherry(62%), Delhi(63%), and Goa(64%). Private-unaided schools in rural areas having a high percentage share in States/UTs like Delhi(36%), Puducherry(35%), Sikkim(29%), Uttar Pradesh(27%), and Rajasthan(26%) whereas various states have a low percentage share of private schools like Lakshadweep(0%), Jharkhand(2%), Bihar(4%), Odisha(4%), and Tripura(6%).

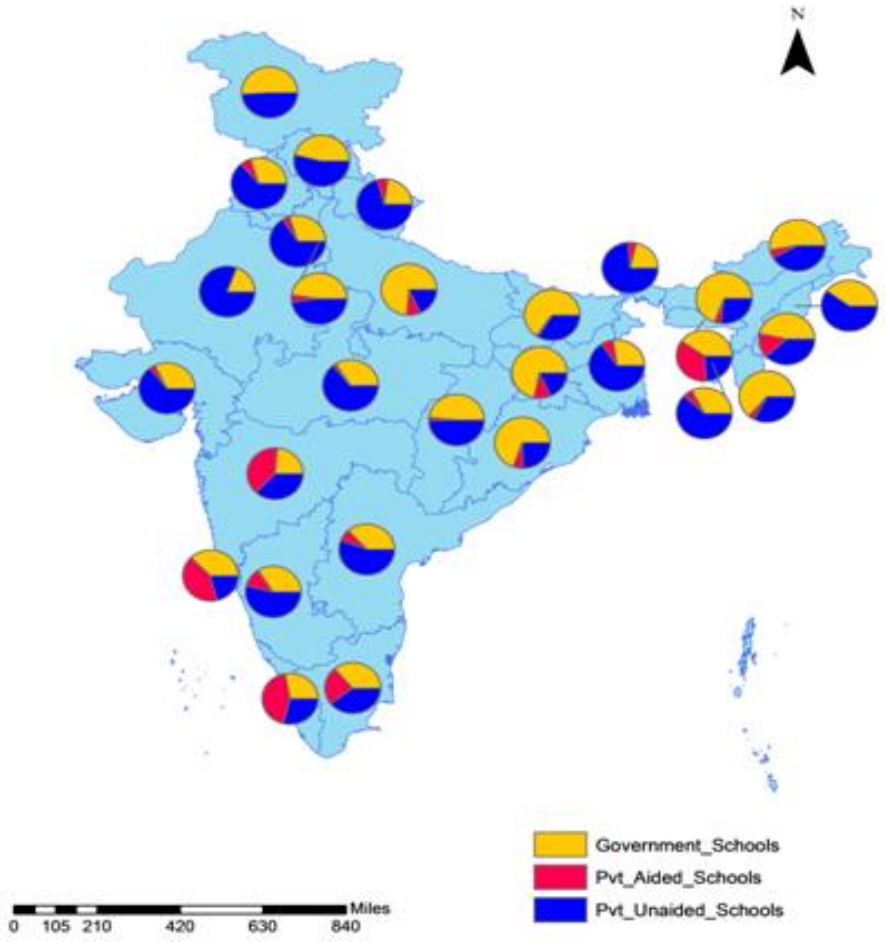
Table 2.6 Management-wise Rural Schools categorization of States

	GOVERNMENT SCHOOLS		PRIVATE SCHOOLS		PRIVATE AIDED SCHOOLS	
HIGH	**(>90%)**	Lakshadweep, Jharkhand, Bihar, Chandigarh, Tripura, Chhattisgarh, Arunachal Pradesh	**(>20%)**	Delhi, Puducherry, Sikkim, Uttar Pradesh, Rajasthan, Haryana, Mizoram, Kerala, Punjab, and Nagaland	**(>10%)**	Kerala, Goa, Meghalaya, Maharashtra, Manipur, and Tamil Nadu
MEDIUM	**(70-90%)**	West Bengal, Odisha, Dadra & Nagar Haveli, Madhya Pradesh, Himachal Pradesh, A & N Island, Gujarat, Telangana, Assam, Jammu & Kashmir, Karnataka, Daman & Diu, Andhra Pradesh, Nagaland, Punjab, Uttarakhand, Haryana, Tamil Nadu, Maharashtra, Rajasthan, Mizoram, Manipur, and Uttar Pradesh	**(10-20%)**	Uttarakhand, Manipur, Daman & Diu, Andhra Pradesh, Jammu & Kashmir, Telangana, Tamil Nadu, A & N Island, Himachal Pradesh, Karnataka, Meghalaya, Gujarat, Madhya Pradesh, West Bengal, and Maharashtra	**(0-10%)**	Assam, Odisha, Chandigarh, Dadra & Nagar Haveli, Uttar Pradesh, Karnataka, Andhra Pradesh, Mizoram, Puducherry, Jharkhand, Uttarakhand, Sikkim, Arunachal Pradesh, Gujarat, and Chhattisgarh
LOW	**(<70%)**	Sikkim, Goa, Delhi, Puducherry, Meghalaya, and Kerala	**(<10%)**	Arunachal Pradesh, Chhattisgarh, Dadra & Nagar Haveli, Assam, Goa, Tripura, Bihar, Odisha, Jharkhand, Chandigarh, and Lakshadweep	**(0%)**	Delhi, Punjab, Telangana, Tripura, Madhya Pradesh, A & N Island, Haryana, West Bengal, Bihar, Daman & Diu, Himachal Pradesh, Jammu & Kashmir, Lakshadweep, Nagaland, and Rajasthan

Source: Researcher's calculation from U-DISE data, 2017-18

In terms of Private Aided School, states like Kerala (47%), Goa (29%), Meghalaya (26%), Maharashtra (16%), Manipur (12%) and Tamil Nadu (11%) have high percentage share i.e. >10% of private aided schools as compared to other states. Whereas as many as 15 states/UTs like Assam, Odisha, Chandigarh, Dadra & Nagar Haveli, Uttar Pradesh, Karnataka, Andhra Pradesh, Mizoram, Puducherry, Jharkhand, Uttarakhand, Sikkim, Arunachal Pradesh, Gujarat, and Chhattisgarh lies in medium-range i.e. 1% - 10%. There are15 states/UTs having zero percentage share (0%) of private aided schools.

Figure 2.12 Management-wise Proportion of Urban Schools



Source: Researcher'sMap Prepared on ArcGIS from U-DISE Data, 2017-18

In the case of management wise distribution of school in urban areas, India has quite a different scenario as compared to overall distribution and distribution in rural areas. The percentage share of Private and Private Aided Schools has increased significantly starting a privatization culture much dominant in urban areas in all states/UTs. India has 37% Government Schools, 53% Private Schools, and 10% Private Aided Schools in Urban areas. As shown in figure 2.12 States/UTs like Lakshadweep (100%), West Bengal (78%), Tripura (74%), Jharkhand (72%), and Odisha (70%) are having high percentage share of Government Schools as compared to other states/UTs whereas states/UTs like Rajasthan (20%), Sikkim (21%), Uttar Pradesh (23%), Maharashtra (24%), and Uttarakhand (27%) have considerably low percentage share of

Urban Government Schools. In terms of Private schools in urban areas, states/UTs like Rajasthan (80%), Sikkim (74%), Uttar Pradesh (71%), Haryana (66%), and Uttarakhand (65%) have high percentage share among others and there are states/UTs that have low percentage share of private schools in urban areas like Lakshadweep (0%), Tripura (18%), Jharkhand (19%), Goa (21%) and West Bengal (22%).

Table 2.7 Management-wise Urban Schools categorization of States

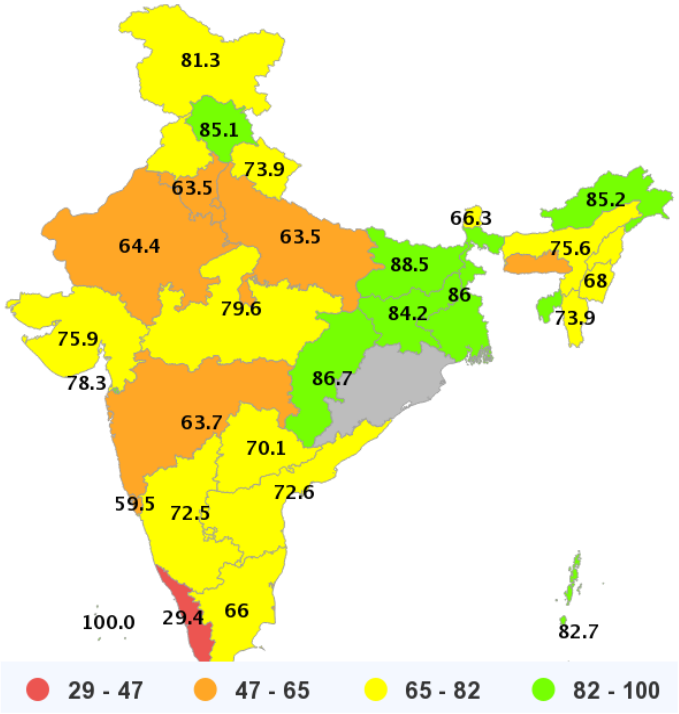
	GOVERNMENT SCHOOLS		PRIVATE SCHOOLS		PRIVATE AIDED SCHOOLS	
HIGH	(>80%)	Lakshadweep, West Bengal, Tripura, Jharkhand, Odisha, Assam, Bihar, and Mizoram	(>60%)	Rajasthan, Sikkim, Uttar Pradesh, Haryana, Uttarakhand, Gujarat, Madhya Pradesh, Punjab, Telangana, and Nagaland	(>30%)	Kerala, Goa, Maharashtra, and Meghalaya
MEDIUM	(30-60%)	Daman & Diu, Dadra & Nagar Haveli, Chandigarh, Arunachal Pradesh, Jammu & Kashmir, A & N Island, Puducherry, Chhattisgarh, Delhi, Manipur, Himachal Pradesh, Meghalaya, Nagaland, Goa, Andhra Pradesh, Tamil Nadu, Karnataka, Madhya Pradesh, Telangana, and Gujarat	(30-60%)	Andhra Pradesh, Himachal Pradesh, Karnataka, Chhattisgarh, Jammu & Kashmir, Delhi, A & N Island, Dadra & Nagar Haveli, Puducherry, Arunachal Pradesh, Chandigarh, Tamil Nadu, Manipur, Maharashtra, Bihar, and Mizoram	(10-30%)	Tamil Nadu, Manipur, Daman & Diu, Karnataka, and Jharkhand
LOW	(<30%)	Haryana, Punjab, Kerala, Uttarakhand, Maharashtra, Uttar Pradesh, Sikkim, and Rajasthan	(<30%)	Kerala, Daman & Diu, Assam, Odisha, Meghalaya, West Bengal, Goa, Jharkhand, Tripura, and Lakshadweep	(<10%)	Tripura, Andhra Pradesh, Uttarakhand, Puducherry, Punjab, Uttar Pradesh, Odisha, Telangana, Arunachal Pradesh, Sikkim, Delhi, Haryana, Assam, Mizoram, Gujarat, Chandigarh, Chhattisgarh, Madhya Pradesh, A & N Island, Bihar, West Bengal, Dadra & Nagar Haveli, Himachal Pradesh, Jammu & Kashmir, Lakshadweep, Nagaland, and Rajasthan

Source: Researcher's calculation from U-DISE data, 2017-18

Besides Private Schools, Private Aided schools are much dominant in urban areas as compared to rural areas. The number of states/UTs in double-digit percentage share has increased from six in rural areas to nine in urban areas showing a clear figure of the dominance of private aided schools in an urban environment and similar trend have been seen in low percentage shareholder states/UTs. Private aided schools having zero percentage share in rural areas have been prevalent in as many as in 15 states/UTs whereas in urban areas it has declined to just 6 states/UTs.

Proportion of Government Schools to Total Schools: The total available schools in India have seen a rising trend, but what is a common phenomenon to note over the years is the rising share of private schools and its school size as compared to government schools and government enrolments. The map below shows the differential proportion of government schools to total schools in different states. A state like Kerala has the least proportion of government schools to total schools, whereas states like Bihar, Chhattisgarh, West Bengal, Arunachal Pradesh, Himachal Pradesh, and Jharkhand have a high proportion of government schools to total schools.

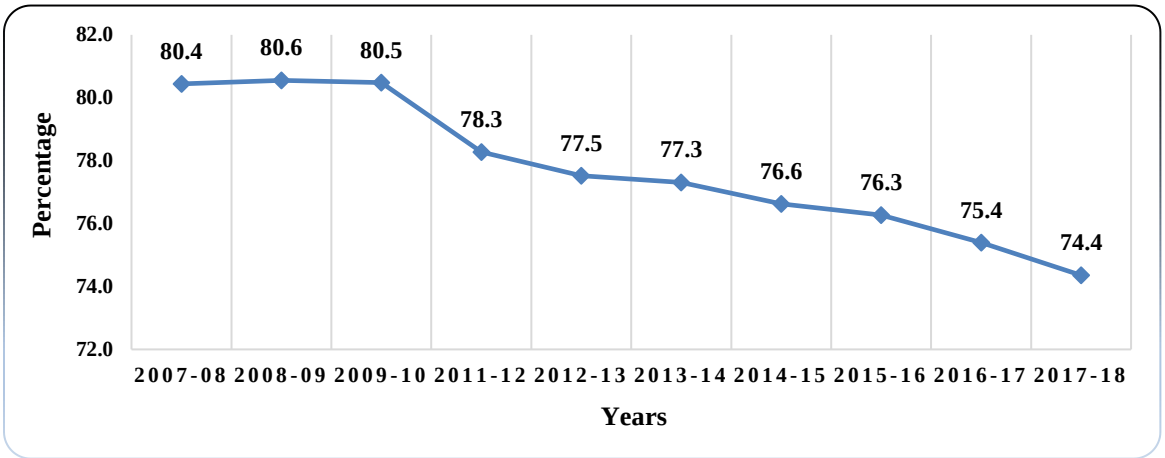
Figure 2.13: Proportion of Government Schools to Total Schools



Source: U-DISE Data, 2016-17

Overall, India has witnessed growth in the number of schools but over the years, there is a declining trend of the proportion of government schools to total schools from 2007-08 to 2017-18 as shown in figure 2.14.

Figure 2.14: Proportion of Government Schools to Total Schools



Source: Researcher's calculation from U-DISE data, 2017-18

Nearly 80 percent share of schools of total schools belonged to government in the year 2007-08, which took a dip of 6 percent to reach 74 percent in the year 2017-18. It is evident from the data that the rising share of private schools and its school size as compared to government schools and government enrolments is a matter of concern. It is important to get to know the factors behind this phenomenon of switching in more profit-generating private players in the education system.

CHAPTER III

AVAILABILITY OF INFRASTRUCTURAL FACILITIES IN SCHOOLS

3.1 Introduction

The previous chapters gave us an insight into the progress our elementary schooling system has made over the years with a special focus after the launch of planned schemes like the Sarva Shiksha Abhiyan across India. The availability and accessibility to basic schooling provisions along with the changing nature of the management of our schools in the Indian and its regional context were discussed in detail. The current chapter in continuation focuses on the availability of infrastructural facilities in the elementary schools across the different states of India and also discusses the geographical disparities that exist in the provision of these basic facilities. The chapter becomes more significant from the aspect of these available facilities in schools having a direct association with access and entry into schools and further its related participation.

3.2 Educational Infrastructure and its relationship with Education Development

The manner in which education was imparted in the olden day's infrastructure in schools would not have been that significant, but in the current times with the advancement of technology and knowledge formal education settings have become a necessity of the day. Parents and members of society expect at least that these schooling spaces be designed for safety and comfort. So infrastructure according to Khader is extremely significant from the perspective of infrastructure being a backbone to sustain our educational system and becomes even more important as it acts as a catalyst to sustain those in the early years of schooling. The input of basic facilities and amenities carve out an important aspect of an educational setup. This is being primarily discussed from research evidence which suggests that infrastructure and its related facilities as being instrumental in determining the demand for education by the population intended to be served.

The facilities provided in schools enhance the quality of education imparted to the students. This infrastructure provides a facilitative set-up, which stimulates the development of an economy. Infrastructure installations do not directly produce goods and services but provide overhead capital for all economic activities; they raise the productivity of other factors, including labor and other capital. For this reason, the infrastructure is often called "unpaid factors for production" (Khader 1998). As per different reports on universalization of elementary education and the SSA framework has given specific directions for providing certain vital facilities imparted in schools. However, Elementary level schools in different states of India are characterized by insufficient and unequal infrastructural and academic facilities. Therefore an attempt has been made under this section to revisit the existing infrastructure and some related facilities to understand its contribution in providing access to education.

3.2.1 Quality Infrastructure and Access: Educational infrastructure comprises of required spaces for children to learn and forms one of the most essentials requirements to ensure that children have access to education. Classrooms act as the spaces where structured learning takes place amongst these children and the availability of basic required quality infrastructure becomes rather significant. Research evidence also suggests that basic infrastructure such as a roof, four walls, electricity, clean water, and toilets, etc. can help to enhance the general conditions under which children live and learn. The provision of such minimum conditions of decent living must be upgraded since the children to whom these are denied can hardly be expected to learn effectively and meet national achievement standards (Duret, 2012). Although quality is a relative word and may have different connotations in different settings, it is being contextualized at the elementary level in relation to the universalization of elementary education which was envisaged two decades ago. The chapter aims to focus on how far are we from achieving this in the given situation.

Some of the aspects that are covered to understand the availability of these facilities in school have been examined using both physical and academic facilities. Attributes related to the physical facilities include the availability of classrooms according to the condition, the student classroom ratios, and some basic amenities like the availability of toilets, drinking water, electricity, etc. Teachers form a very important

pillar of the educational support system and also may be a contributing factor to get students into the system and more importantly retain in the system until they complete the education cycle. These factors will be discussed at the national level using both a temporal as well as a spatial trend to understand the existing regional disparities.

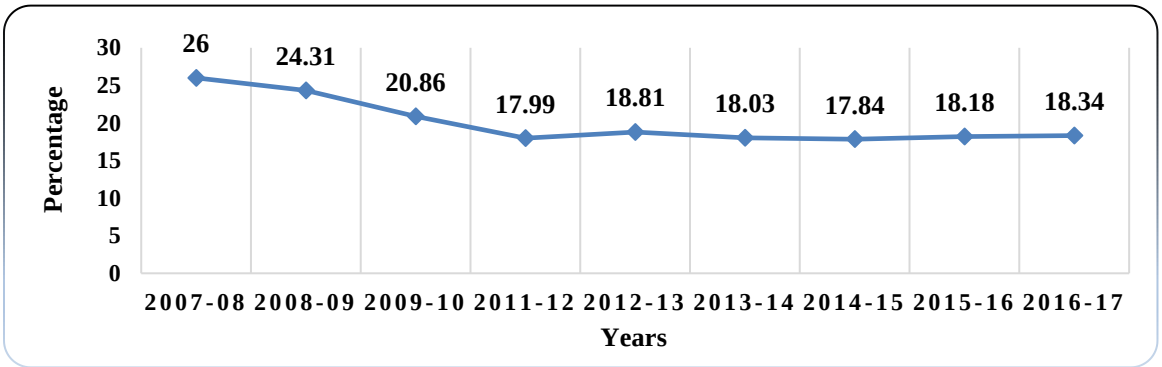
3.2.2 Physical Facilities in Schools: The Physical facilities available in a school include the basic structure of a school and these with the availability of minimum services if provided are conducive for a good learning atmosphere for children enrolled. Although many research studies suggest that learning levels may not have direct bearing with the available infrastructure a world bank study on why infrastructure matters suggest that buildings, classrooms, laboratories, and equipment education infrastructure are crucial elements of learning environments in schools and universities as there is strong evidence that high-quality infrastructure facilitates better instruction, improves student outcomes, and reduces dropout rates, among other benefits (World Bank 2017). States that have achieved high rates of enrolment have been successful in expanding school access, but have failed to ensure the necessary 'physical' and 'human' infrastructural facilities in those schools, lacking proper learning environment which adversely affects the learning outcomes of children (Mukherjee 2015). Some key aspects as stated earlier that are discussed in this section include the following:

1) ***Conditions of Classrooms***
2) ***Students Classroom Ratios***
3) ***Basic Amenities***

1) ***Conditions of Classrooms:*** Classrooms are the physical spaces where children spend most of their school time. Regarding that, as the basic premise, the condition of these classrooms is of utmost importance, as most of the teaching-learning process will take place in these spaces. If they are not according to the required standard their poor condition may not enable the students to learn in the desired environment and result in low school performances. Even after decades of planned interventions to boost UEE, we still seem too far from having both an adequate number of classrooms, and the condition of these available classrooms are still not in good condition.

Figure 3.1 shows the trend of a decade about the condition of the classroom which is not in good condition and it shows that almost 18.34 percent of the classrooms in India are still not in good condition. The percentage share since 2008 has shown a decreasing trend until 2011-12 to reach approximately 18 percent from 26 percent. Whereas, since 2011-12 it has remained to be in a constant way near to 18 percent till 2016-17, showing a clear sign of not much effort put into improving classroom condition over the past 6 years.

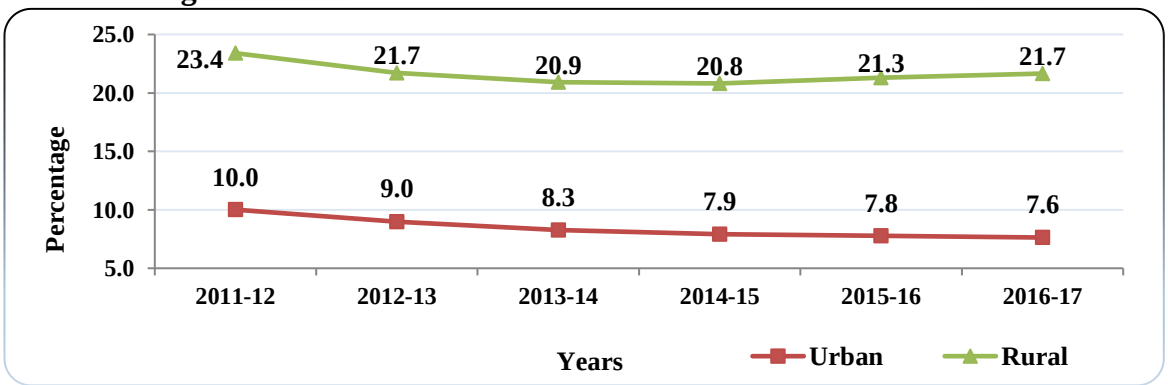
Figure 3.1 Classroom not in Good Condition



Source: Researcher's calculation using U-DISE data, 2016-17

Figure 3.2, on the other hand, shows the percentage of classrooms which were not in good condition in the last six years in urban areas and rural areas. There is also a huge difference between the condition of schools in urban and rural localities, wherein 22 percent of the rural schools as compared to less than 8 percent of urban schools are still not in a desired or good condition for the year 2016-17. So, it is extremely important to fill this gap among rural and urban classrooms and overall decrease the percentage share of classrooms not in good condition.

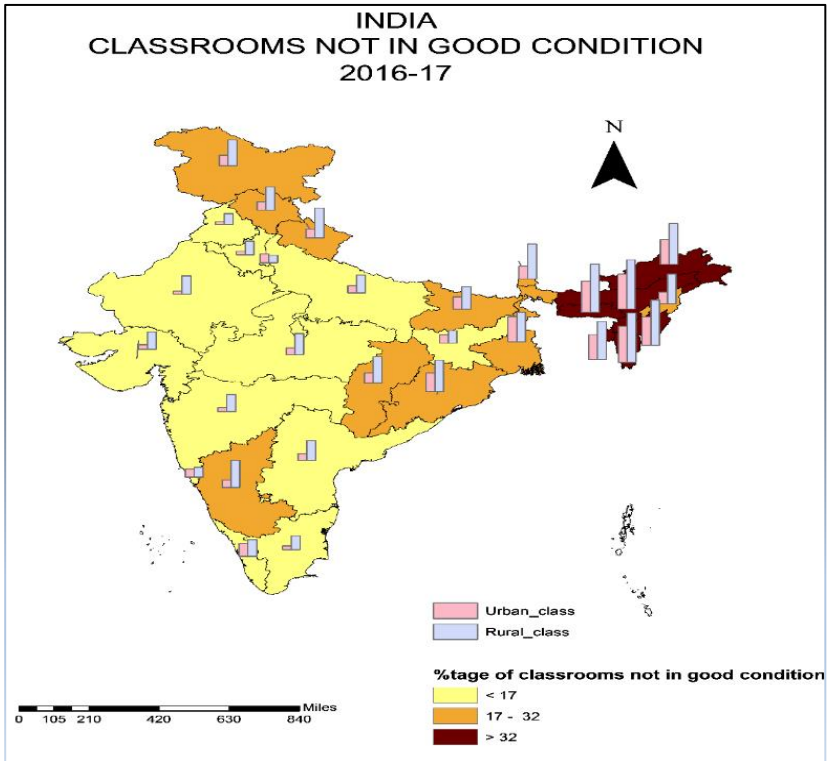
Figure 3.2 Urban and Rural Classrooms not in Good Condition



Source: Researcher's calculation using U-DISE data, 2016-17

Regional Variations: The map given below presents a regional pattern of the condition of classrooms across the different states of India. Assam, Meghalaya, Mizoram, Manipur, and Arunachal Pradesh are the top five states having classrooms, not in good condition. All five states have more than 40 percent of classrooms not in good condition. Whereas, states like Punjab, Delhi, Goa, and Tamil Nadu have less than 10 percent classrooms, not in good condition. In urban settings, states like Mizoram, Assam, Meghalaya, Manipur, and West Bengal are top five states with classrooms not in good condition having more than 25 percent share. Whereas, Punjab has the lowest among all with just 2.62 percent of classrooms not in good condition in urban areas. In rural areas, states like Mizoram, Assam, Meghalaya, Manipur, and Arunachal Pradesh are top five states having classrooms not in good condition whereas, Goa and Delhi have less than 10 percent of classrooms not in good condition. Most of the North-Eastern states represented a poor scenario as far as the condition of classrooms is concerned. Almost all the eight states apart from Nagaland had more than 30 percent of their classrooms not in the desired good condition. The rural areas within these states represented an even meager scenario.

Figure 3.3: Classrooms not in Good Condition

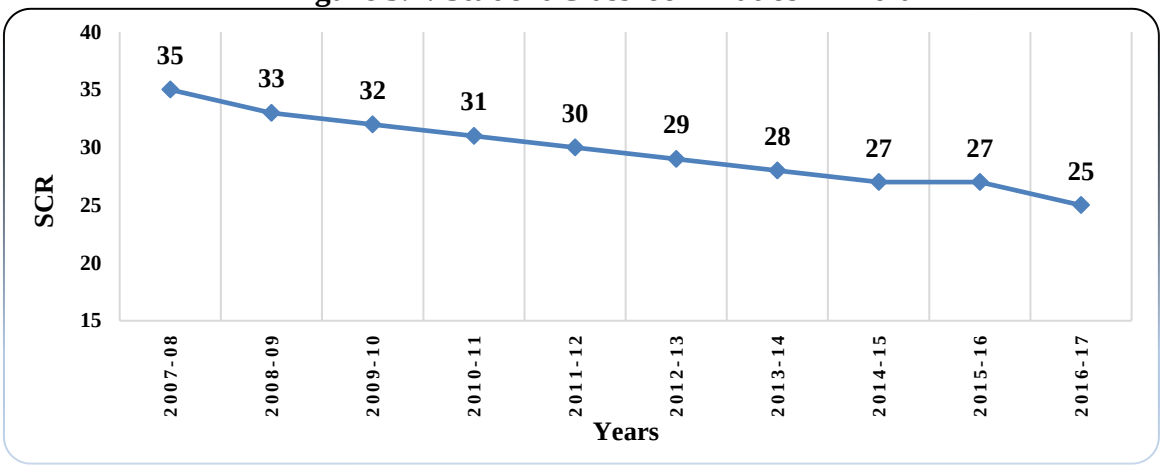


Source: Researcher'sMap Prepared on ArcGIS from U-DISE Data, 2017-18

Overall, India has an average of 22 percent classrooms that are not in good condition whereas, this average decreases to 12 percent in urban areas and rises to 25 percent in rural areas. To see variation between Urban and Rural areas, coefficient of variation (CV) was taken out which brought in clarity that India had 52 percent of CV whereas in the urban areas there was a higher level of variation as compared to rural areas. The CV was 77 percent for urban areas as compared to 47 percent in the rural areas. So, there are states which perform very well in terms of classrooms in good condition but there are other states as well which perform very poorly leading to a high degree of CV in urban areas as compared to rural areas.

2) Student Classrooms Ratios: The availability of a school structure is instrumental in determining the number of those who enroll. Equally important is the availability of a sufficient number of rooms in those schools for a conducive teaching-learning atmosphere. If the number of rooms available in a school is not according to the number of grades and the enrolment size then there may be crammed classrooms or may lead to multiple grade teaching in such a situation the access to education gets hampered and there may be poor learning outcomes. The policies and programmes initiated by the government have always stressed making the required number of classrooms available for children to create a children-friendly environment.

Figure 3.4: Student Classroom Ratios in India

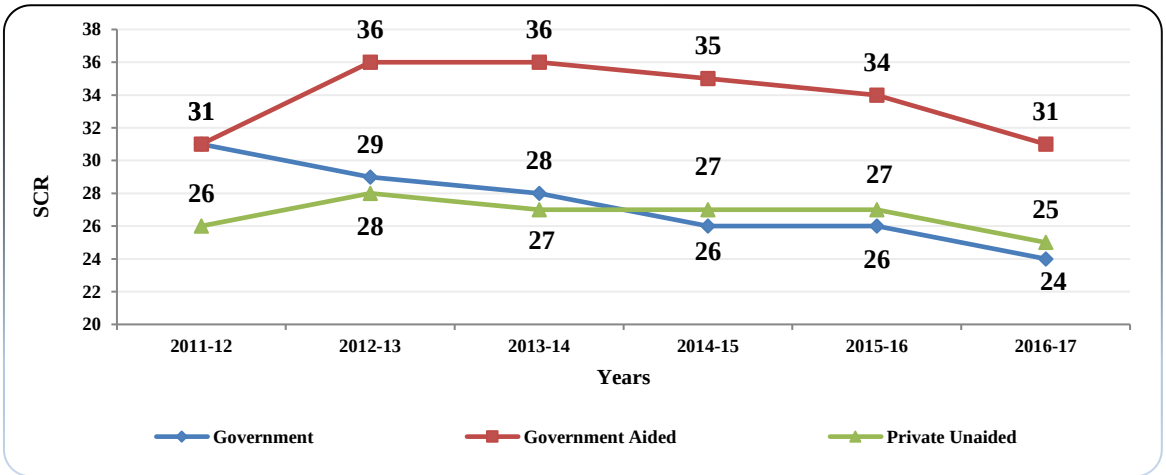


Source: U-DISE, 2016-17

Figure 3.4 above shows a continuous declining trend of the Student Classroom Ratio of a decade. From an SCR of 35 for the year 2007-08 to 25 in the year 2016-17 has

shown a significant improvement over a decade. The management-wise scenario of Student classroom Ratio, Government-Aided schools have relatively high SCR as compared to Government schools and private-unaided schools as shown in figure 3.5. Government schools have lowered SCR with a continuous trend since 2011-12 and private schools have remained almost constant with the least variation among 6 years or have rather managed the SCR well over the years.

Figure 3.5 Management-wise Student Classroom Ratios in India

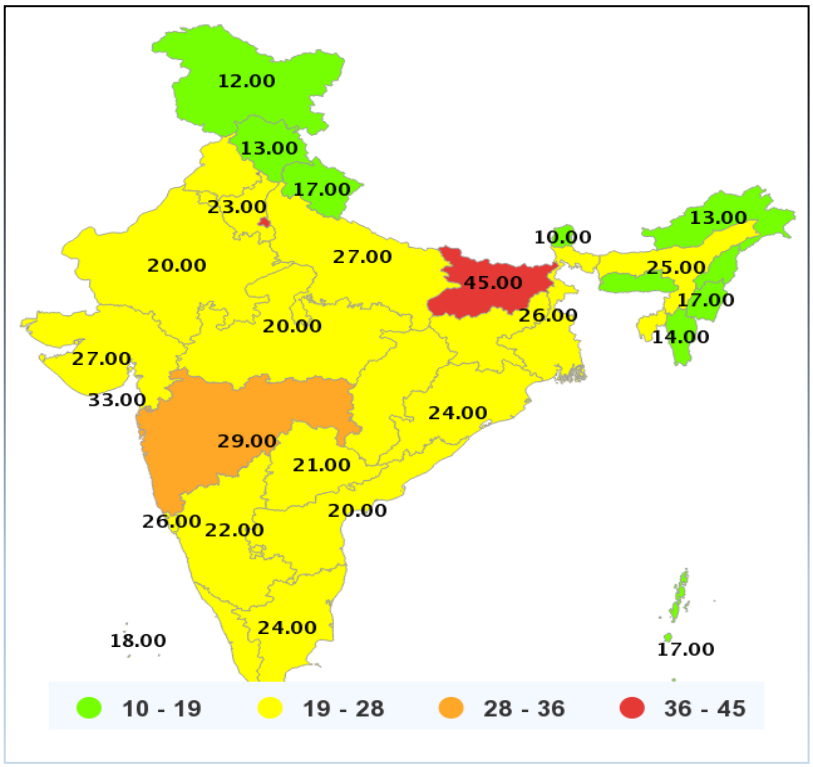


Source: U-DISE data, 2016-17

It is also evident that there is a huge gap in the SCR of private-unaided and government-aided schools. So, Government-aided schools need to lower SCR.

Regional Variation: SCR varies in different states from as low as 10 in Sikkim and as high as 45 in Bihar as shown in figure 3.6. Most of the hilly states like Jammu & Kashmir, Himachal Pradesh, Punjab, Sikkim, Arunachal Pradesh, Nagaland, Manipur, Mizoram, and Meghalaya have favorable SCR. whereas states like Maharashtra and Bihar have relatively very high SCR. Most of the northern, western, and southern states have moderate SCR. The huge variation among all northeastern states and few northern hilly states with the rest of Indian states leaves a gap to be filled

Figure 3.6 Student Classroom Ratio



Source: U-DISE Data, 2016-17

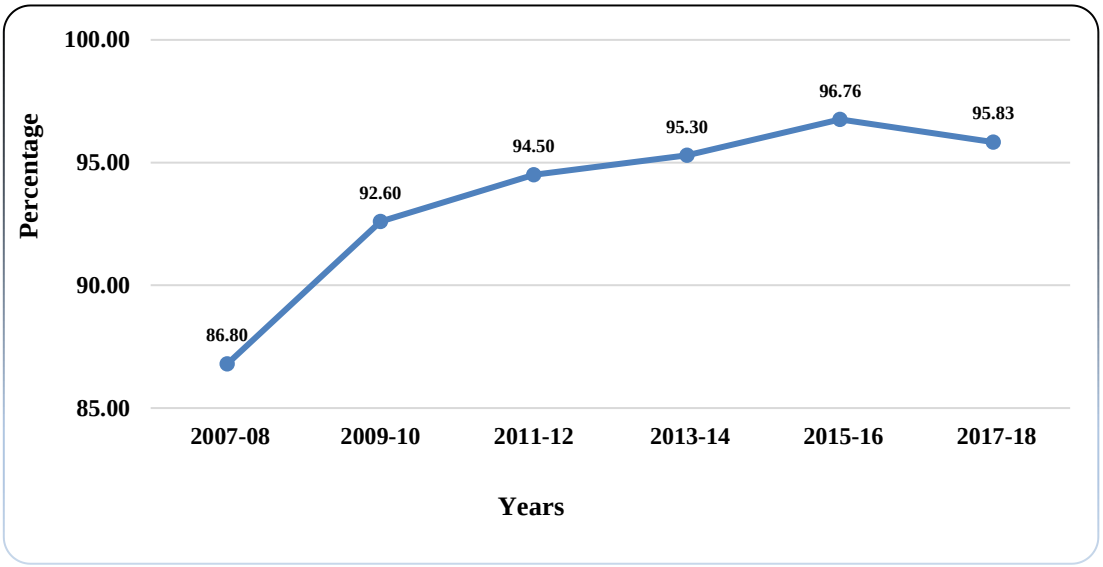
3) Basic Amenities

The Supreme Court in a 2012 verdict against a writ petition filed in 2004 directed the central and state governments to provide infrastructural facilities including basic services like drinking water and toilets to all schools. It very clearly stated that not providing the required infrastructure was a violation of the RTE guaranteed under Article 21-A of the Constitution. The available facilities may not have a direct link with the performance of students in many cases but they act as facilitators or work as a support system and enhance the teaching-learning process. There is also research evince to support the fact that they play a very important role in access to schools and more on the retention of those enrolled. Basic amenities are vital in the education system and are an important determinant of access to schooling. To get a better understanding of the same the availability of some key basic facilities like drinking water, electricity, computers and ramps on the premises of our schools have been analyzed under this section. This is done

with the purpose to take stock of how far we have reached in achieving these basic provisions and understand the existing regional disparities across India.

3. a) Drinking Water Facility: Water is basic and essential for all living beings and ensuring drinking water facilities is available to the children in schools is a very important criterion. As students spend a substantial amount of time in school and the non-availability of clean and fresh drinking water can drive them away.

Figure 3.7 Schools having Drinking water



Source: U-DISE data, 2017-18.

Overall, India has witnessed a continuous upward growth trend in schools having a Drinking water facility since 2007-08 till 2016-17 but saw a slight decline in 2018(95.83%) from 2016-17 (96.76%) as shown in Figure 3.7. In India, around 84% of states/UTs have more than 90 percent accessibility of drinking water, out of which 3 states/UTs have 100% accessibility to drinking water whereas there are 5 states/UTs that have in the range of 80-90 percent and Meghalaya has the least percentage share i.e. 62.65%.

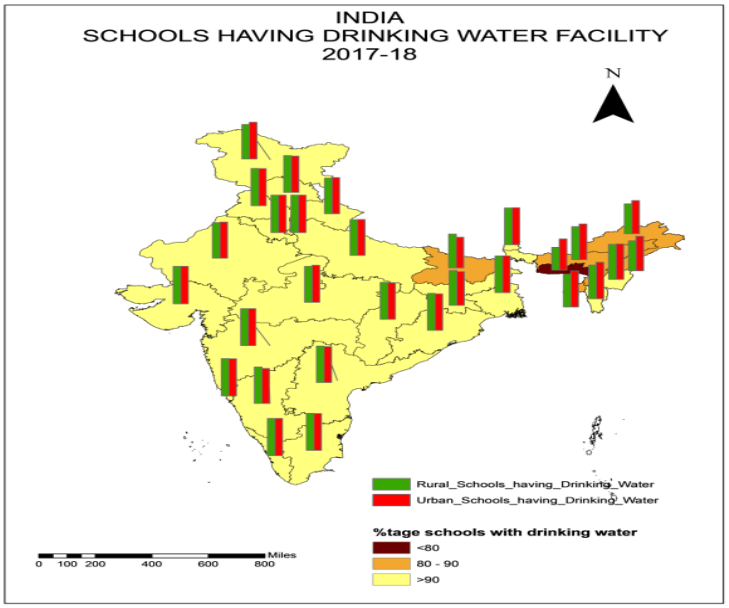
Table 3.1 Categorization of States having Drinking Water Facility

		RURAL SCHOOLS		URBAN SCHOOLS		TOTAL SCHOOLS
HIGH	(>90%)	Chandigarh, Delhi, Goa, Lakshadweep, Gujarat, Haryana, Punjab, Dadra & Nagar Haveli, Kerala, Tamil Nadu, Odisha, A & N Island, Daman & Diu, Maharashtra, Chhattisgarh, Sikkim, Himachal Pradesh, Telangana, West Bengal, Andhra Pradesh, Puducherry, Karnataka, Madhya Pradesh, Uttar Pradesh, Rajasthan, Uttarakhand, Manipur, Jharkhand, and Jammu & Kashmir	(>90%)	Chandigarh, Delhi, Goa, Lakshadweep, Gujarat, Haryana, Punjab, Dadra & Nagar Haveli, Kerala, Tamil Nadu, Odisha, A & N Island, Daman & Diu, Maharashtra, Chhattisgarh, Sikkim, Himachal Pradesh, Telangana, West Bengal, Andhra Pradesh, Puducherry, Karnataka, Madhya Pradesh, Uttar Pradesh, Rajasthan, Uttarakhand, Manipur, Mizoram, Assam, Tripura, Nagaland, and Jammu & Kashmir	(>90%)	Chandigarh, Delhi, Goa, Lakshadweep, Gujarat, Haryana, Punjab, Dadra & Nagar Haveli, Kerala, Tamil Nadu, Odisha, A & N Island, Daman & Diu, Maharashtra, Chhattisgarh, Sikkim, Himachal Pradesh, Telangana, West Bengal, Andhra Pradesh, Puducherry, Karnataka, Madhya Pradesh, Uttar Pradesh, Rajasthan, Uttarakhand, Manipur, Mizoram, and Jammu & Kashmir
MEDIUM	(80-90%)	Bihar, Mizoram, Assam, Tripura, and Arunachal Pradesh	(80-90%)	Bihar, Meghalaya, Arunachal Pradesh, and Jharkhand	(80-90%)	Arunachal Pradesh, Nagaland, Tripura, Assam, and Bihar
LOW	(<80%)	Nagaland and Meghalaya	(<80%)	-	(<80%)	Meghalaya

Source: Researcher's calculation from U-DISE data, 2017-18

States like Arunachal Pradesh, Nagaland, Tripura, Assam, and Bihar fall in the range of 80 to 90 percent of schools with drinking water facilities. In rural schools, states like Meghalaya (61.27%) and Nagaland (79.80%) have a low percentage in provision with drinking water facility, whereas states like Bihar, Mizoram, Assam, Tripura, and Arunachal Pradesh lies in the range of 80 to 90 percent schools with a drinking water facility.

Figure 3.8 Schools having Drinking Water facility

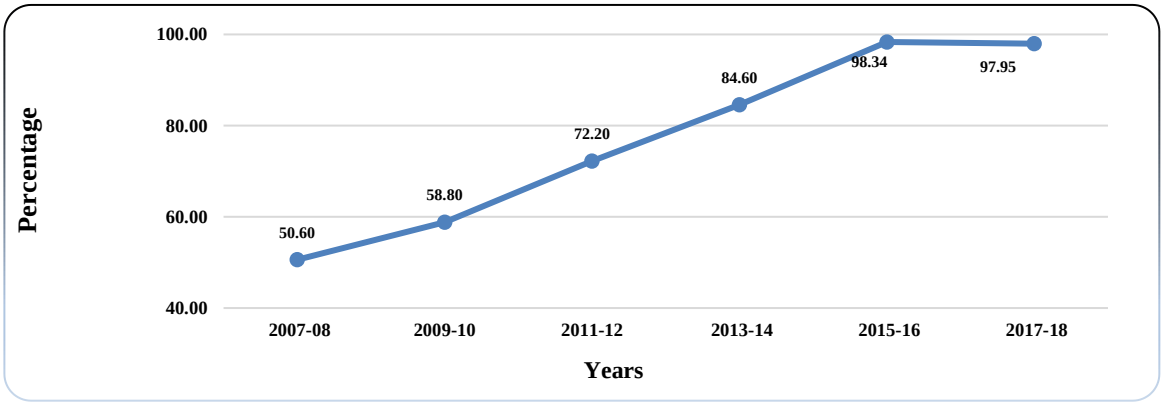


Source: Researcher'sMap Prepared on ArcGIS from U-DISE Data, 2017-18

Looking into the Rural and Urban difference, it is evident that there are 14 states where rural schools have more accessibility or drinking water facility than in Urban Schools. There are few states which have a bigger difference as compared to other states/UTs between its drinking water facility in rural schools and urban schools. States like Meghalaya and Nagaland have a difference of 22.26% and 12.20% respectively between rural and urban schools with drinking water facilities.

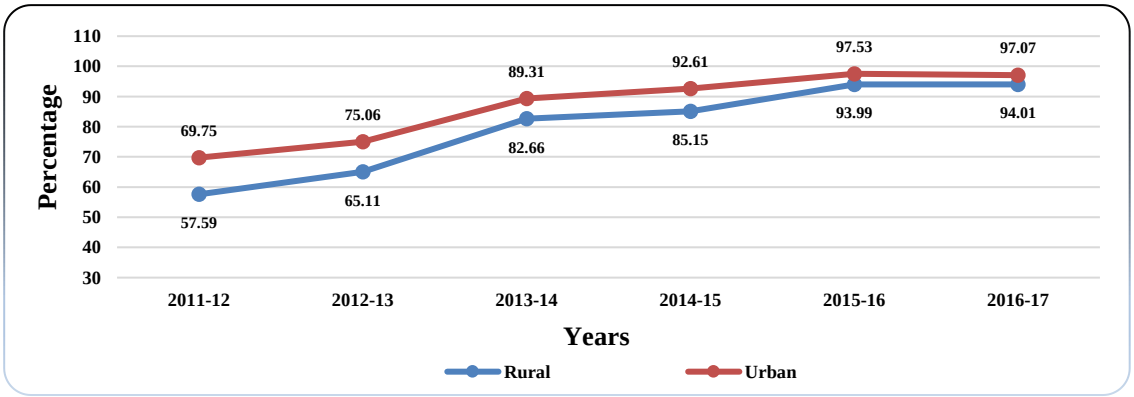
3.b: Functional Girls Toilet: Availability of toilets in schools has always been highlighted as an essential and basic facility and these become more significant for the girl child. As per the RTE norms, toilets for boys and girls are one of the minimum infrastructure facilities required in a school. The availability of toilets in many studies has also represented a close association with access to schooling provisions and also retaining in the school's system.

Figure 3.9 Schools having Functional Girl's Toilet



Source: U-DISE.

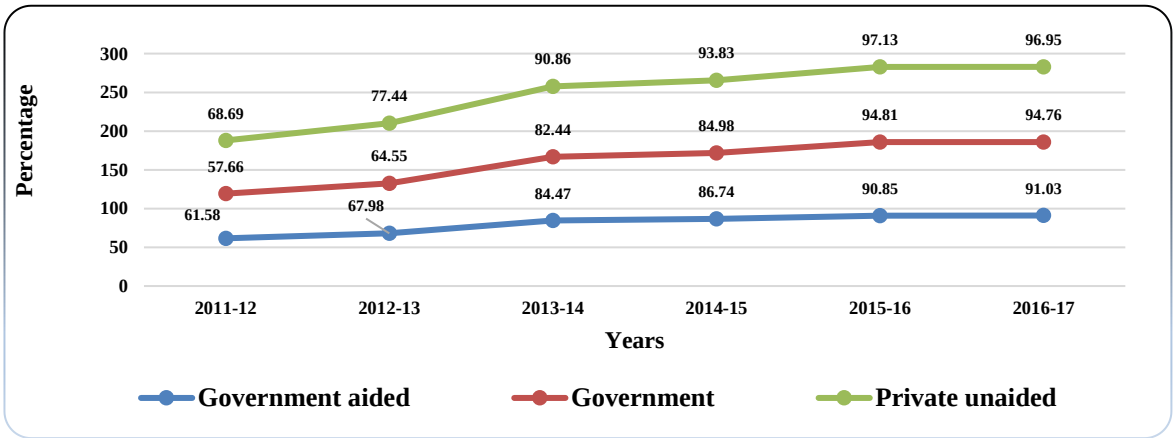
Figure 3.10 Schools having Functional Girl's Toilet



Source: U-DISE.

Emphasizing on Girl's toilet, as shown in figure 3.9, India has been continuously showing an upward trend towards achieving 100% of schools having Girls toilet. Whereas in figure 3.10, it is evident over the past 6 years that rural schools, as well as urban schools having functional girl's toilet, are continuously moving towards achieving 100 percent, and the gap between rural and urban schools, has kept reducing that was prevailing since 2011-12 to 2016-17. In looking into management –wise figure 3.11 shows a continuous upward trend of government, government-aided, and private unaided schools having functional girls toilet.

Figure 3.11 Management-wise Schools having Functional Girl's Toilet

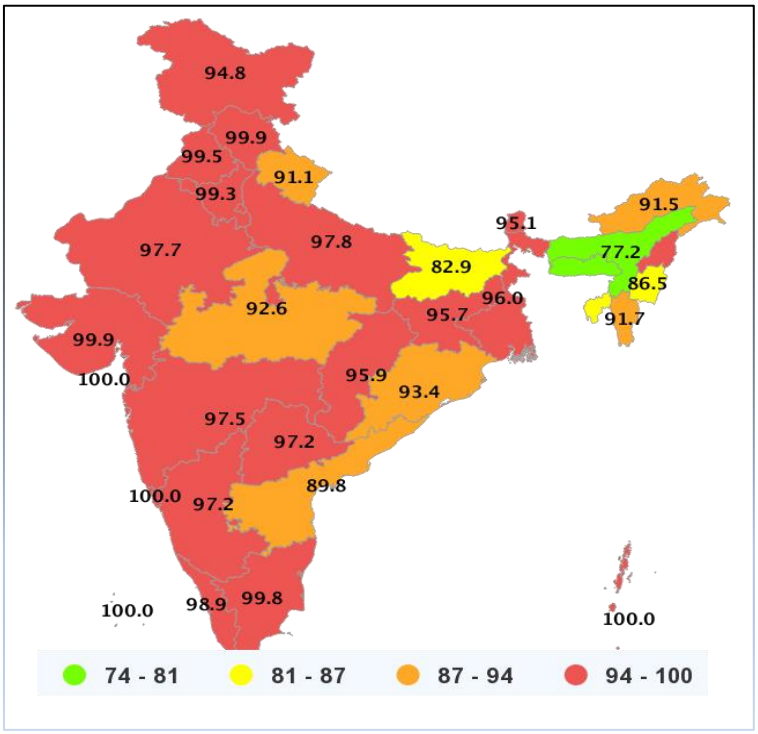


Source: U-DISE.

Government schools have shown an exceptional growth of 37 percent in 6 years whereas government aided and private unaided have approximately 29 percent growth which indicates a good sign in the provision of girl's toilet in government schools.

Regional Variations: Meghalaya, Assam, Bihar, Tripura, Manipur, and Andhra Pradesh are having the facility of girl's toilet below 90 percent. Meghalaya (74.4%) has the lowest percentage in provision with a girl's toilet among all. Whereas looking into union territories, all of them have 100 percent accessibility to functional girl's toilet, whereas among states Goa, Himachal Pradesh, Gujarat, Tamil Nadu, Punjab, and Haryana have almost 100 percent accessibility to girl's toilet facility. There is a huge difference of 26 percent between the highest and lowest percentage share of states with the provision of a functional girl's toilet.

Figure 3.12 Schools having Girl's Toilet



Source: U-DISE data, 2016-17

3. c) Schools Having Electricity: Electricity is one of the most important and integral parts of our everyday life today and also the school systems that play a major role in bringing efficiency in education. Overall, India has progressed well since 2008 and has reached 66.63 percent coverage of Schools with electricity till 2018, which still has a lot of scope for improvement as shown in figure 3.13. Whereas management-wise schools in figure 3.14 show private schools having more access to electricity as compared to government schools.

Figure 3.13 Schools having Electricity

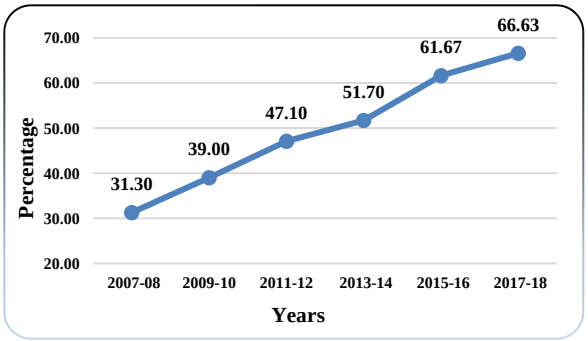
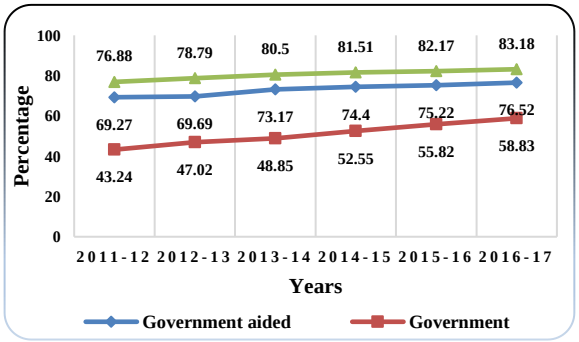


Figure 3.14 Management-wise Schools having Electricity



Source: U-DISE

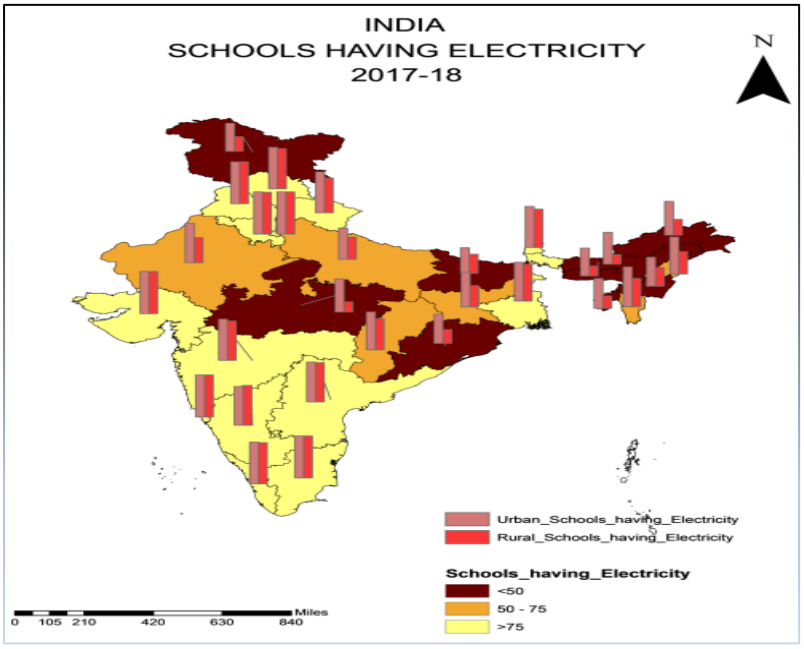
Table 3.2 Categorization of States having Electricity

	RURAL SCHOOLS		URBAN SCHOOLS		TOTAL SCHOOLS	
HIGH	(>75%)	Chandigarh, Dadra & Nagar Haveli, Delhi, Goa, Lakshadweep, Gujarat, Puducherry, Punjab, Tamil Nadu, Haryana, Daman & Diu, Kerala, Himachal Pradesh, Karnataka, Maharashtra, Andhra Pradesh, Telangana, Sikkim, A & N Island, West Bengal, and Uttarakhand	(>75%)	A & N Island, Chandigarh, Dadra & Nagar Haveli, Delhi, Goa, Lakshadweep, Puducherry, Gujarat, Haryana, Tamil Nadu, Punjab, Kerala, Himachal Pradesh, Maharashtra, Telangana, Sikkim, Daman & Diu, Uttarakhand, Andhra Pradesh, Mizoram, Rajasthan, West Bengal, Karnataka, Chhattisgarh, Nagaland, Jharkhand, Arunachal Pradesh, Madhya Pradesh, and Assam	(>75%)	Chandigarh, Dadra & Nagar Haveli, Delhi, Goa, Lakshadweep, Gujarat, Puducherry, Tamil Nadu, Punjab, Haryana, Daman & Diu, Kerala, Himachal Pradesh, Maharashtra, Telangana, Karnataka, Andhra Pradesh, Sikkim, A & N Island, West Bengal, and Uttarakhand
MEDIUM	(50-75%)	Chhattisgarh, Mizoram, Rajasthan, Nagaland, Uttar Pradesh, and Jharkhand	(50-75%)	Uttar Pradesh, Tripura, Odisha, Manipur, Jammu & Kashmir, Meghalaya, and Bihar	(50-75%)	Chhattisgarh, Mizoram, Rajasthan, Nagaland, Uttar Pradesh, and Jharkhand
LOW	(<50%)	Bihar, Manipur, Arunachal Pradesh, Jammu & Kashmir, Odisha, Tripura, Madhya Pradesh, Meghalaya, and Assam	(<50%)	-	(<50%)	Manipur, Bihar, Arunachal Pradesh, Jammu & Kashmir, Odisha, Tripura, Madhya Pradesh, Meghalaya, and Assam

Source: Researcher's calculation from U-DISE data, 2017-18

Regional Variation: Figure 3.15 shows Map of state-wise variation in Schools having electricity along with Rural and Urban differences in different states. States/UTs like Goa, Delhi, Chandigarh, and Lakshadweep have 100% Schools having electricity and around 14 States/UTs have 90-99 percent electricity facilities whereas States like Assam (24.91%), Meghalaya (26.39%), Madhya Pradesh (32.20%), Tripura (32.90%), Odisha (35.33%), Jammu & Kashmir (37.54%), Arunachal Pradesh(42.02%), Bihar (46.78%), and Manipur (48.10%)are having least percentage share of schools having Electricity.

Figure 3.15 Schools Having Electricity

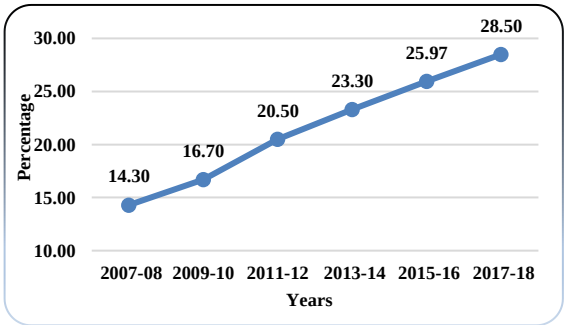


Source: Map Prepared on ArcGIS from U-DISE Data, 2017-18

Whereas, urban and rural schools having electricity data shows prevailing differences in urban schools and rural schools. Overall, India has a 25.71 percent difference between urban schools having electricity and rural schools having electricity. Similarly, there are as many as 11 states like Madhya Pradesh, Assam, Arunachal Pradesh, Meghalaya, Tripura, Odisha, Nagaland, Rajasthan, Jammu & Kashmir, Jharkhand, and Mizoram which have more than 25 percent difference between the availability of electricity in Urban Schools and rural schools. It is extremely important to fill this gap.

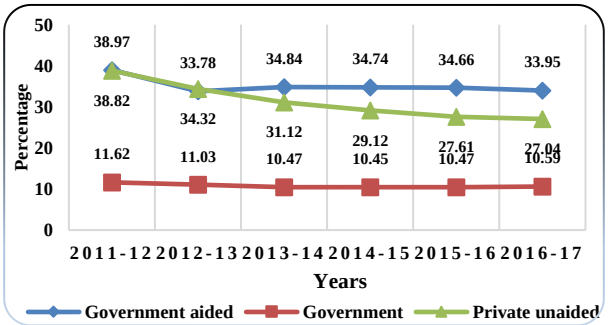
3. d) School Having Computers: In the 21st century, Computers are taken as an integral part of the School ecosystem, and making it accessible has been a continuous effort as shown in figure 3.16. From 2008 with 14.30% to 2018, a continuously growing trend with a very slow pace has reached only 28.50 percent of schools in India having computer facilities.

Figure 3.16 Schools having Computers



Source: U-DISE data, 2017-18

Figure 3.17 Management-wise Schools having Computers



Source: U-DISE data, 2016-17

Management-wise government-aided and private schools have more access to functional computers as compared to government schools in India. Moreover, government schools have remained to be stagnant over 6 years as shown in figure 3.17. So, government schools need to put more effort into bringing access to functional computers in schools.

Regional Variation: Whereas, there is variation among states in the provision of schools with Computer, UTs like, Lakshadweep (100%), Puducherry (98.61%), and Chandigarh (95.98%) have put up maximum coverage as compared to other states like Bihar (9.45%),

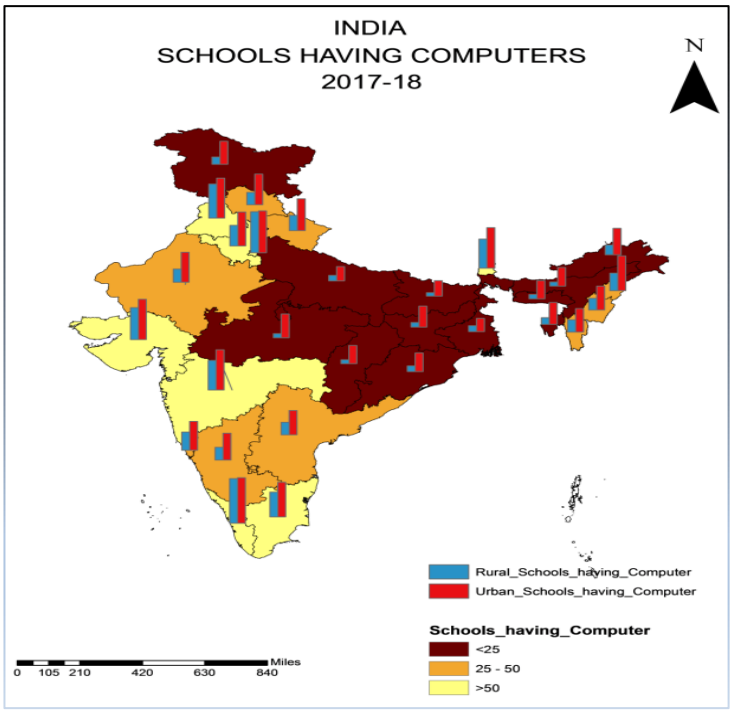
Assam (10.13%), and Meghalaya (11.01%) that have the least coverage in Provision of Schools with Computer.

Table 3.3 Categorization of States having Computers

	RURAL SCHOOLS		URBAN SCHOOLS		TOTAL SCHOOLS	
HIGH	(>50%)	Lakshadweep, Puducherry, Kerala, Chandigarh, Delhi, Daman & Diu, Dadra & Nagar Haveli, Punjab, Gujarat, Maharashtra, Sikkim, A & N Island, and Tamil Nadu	(>50%)	Dadra & Nagar Haveli, Lakshadweep, Puducherry, Kerala, Chandigarh, A & N Island, Delhi, Sikkim, Maharashtra, Gujarat, Punjab, Daman & Diu, Tamil Nadu, Nagaland, Haryana, Uttarakhand, Himachal Pradesh, Telangana, Rajasthan, Goa, Karnataka, Arunachal Pradesh, Andhra Pradesh, Manipur, Madhya Pradesh, and Mizoram	(>50%)	Lakshadweep, Puducherry, Chandigarh, Kerala, Delhi, Daman & Diu, Dadra & Nagar Haveli, Punjab, Gujarat, Maharashtra, Sikkim, A & N Island, Tamil Nadu, and Haryana
MEDIUM	(25-50%)	Haryana, Goa, Nagaland, Uttarakhand, Rajasthan, Karnataka, Andhra Pradesh, Telangana, Himachal Pradesh, and Mizoram	(25-50%)	Jammu & Kashmir, Tripura, Jharkhand, Odisha, Assam, Chhattisgarh, Meghalaya, Bihar, Uttar Pradesh, and West Bengal	(25-50%)	Goa, Nagaland, Telangana, Uttarakhand, Karnataka, Rajasthan, Mizoram, Andhra Pradesh, Manipur, and Himachal Pradesh
LOW	(<25%)	Manipur, Arunachal Pradesh, Jammu & Kashmir, Tripura, West Bengal, Odisha, Uttar Pradesh, Jharkhand, Meghalaya, Madhya Pradesh, Assam, Chhattisgarh, and Bihar	(<25%)	-	(<25%)	Arunachal Pradesh, Jammu & Kashmir, Tripura, Madhya Pradesh, West Bengal, Odisha, Uttar Pradesh, Jharkhand, Chhattisgarh, Meghalaya, Assam, and Bihar

Source: Researcher's calculation from U-DISE data, 2017-18

Figure 3.15 Schools having Computers



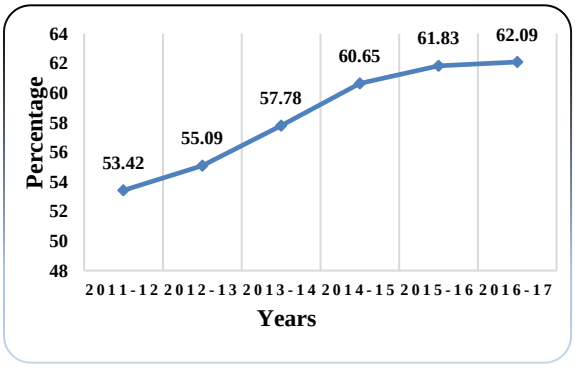
Source: Map Prepared on ArcGIS from U-DISE Data, 2017-18

Apart from that, there are almost 22 states/UTs that have below 50% share coverage of schools with computers. Overall, India has a 34.16 percent difference between urban schools having a computer and rural schools having a computer.

Similarly, there are as many as 9 states like Madhya Pradesh, Himachal Pradesh, Telangana, A & N Island, Nagaland, Rajasthan, Arunachal Pradesh, Jharkhand, Uttarakhand, Jammu & Kashmir, and Andhra Pradesh which have more than 25 percent difference between the availability of computers in Urban Schools and rural schools. It is extremely important to fill this gap between rural schools and urban schools. States with the availability of computers in schools have been very similar to the states with the availability of electricity which has a similar trend in rural and urban schools as well.

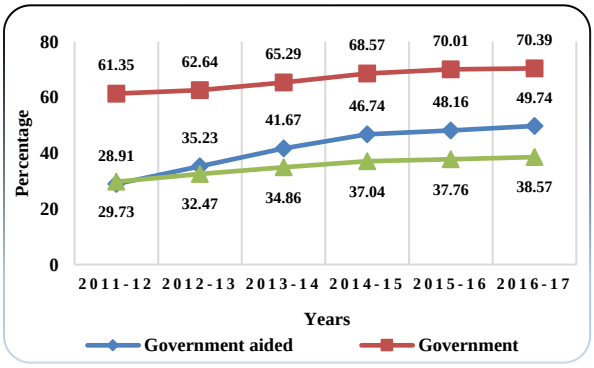
3.e) School Having Ramp Facility: School structures also need to be inclusive especially for the physically handicapped and basic facilities such as ramps are necessary conditions. Figure 3.16 shows the trend of coverage of Schools with ramp facilities up to 2017. India has progressed well since 2011 from 53.42 percent and had reached to 62.09 percent in the year 2016-17. Whereas management-wise schools having ramp facility over the past 6 years have seen tremendous growth of 20 percent in government-aided schools with provision of ramp facility.

Figure 3.16 Schools having Ramp Facility



Source: U-DISE data, 2016-17

Figure 3.17 Management-wise Schools having Ramp Facility



Source: U-DISE data, 2016-17

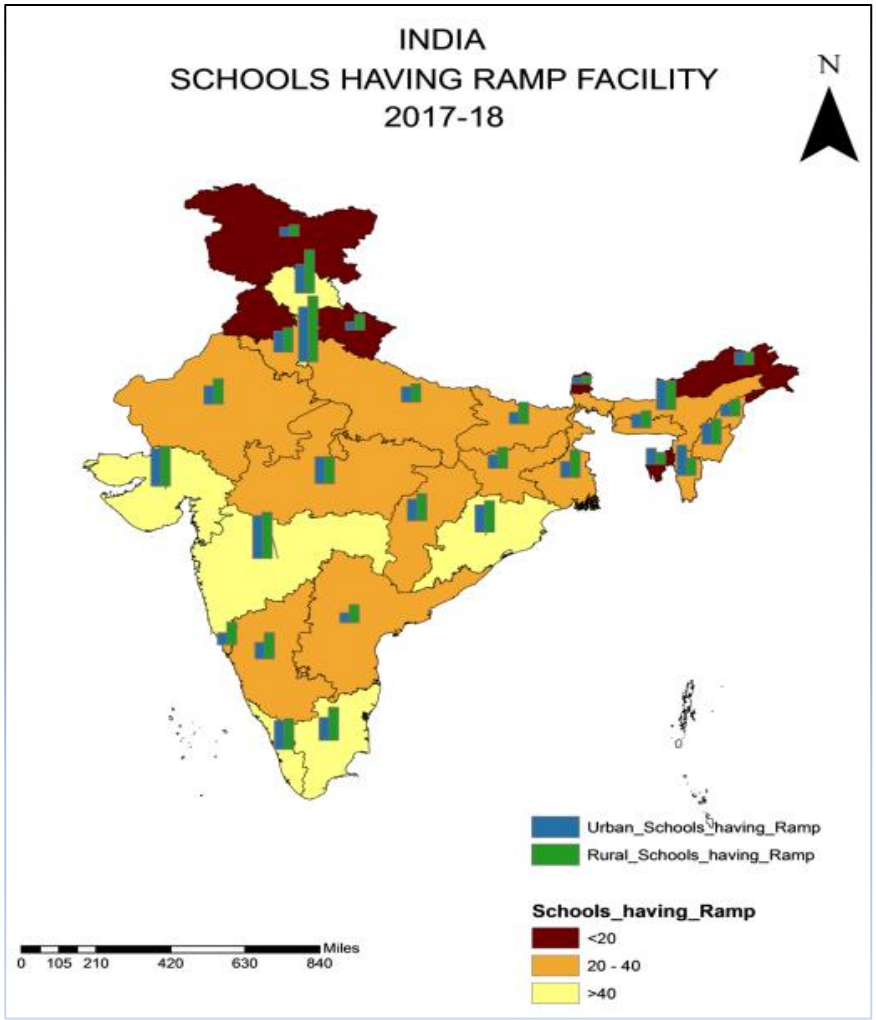
While a similar growth has not been seen in government and private unaided schools as it increased by just 9 percent and 8 percent respectively over 6 years. So, it will be interesting to know how government-aided schools can bring in access to ramp facility on a larger scale as compared to government and private unaided schools. Figure 3.17 shows Map of state-wise variation in the percentage of Schools having ramp along with Rural and Urban differences in different states.

Table 3.4 Categorization of States having Ramp Facility

	RURAL SCHOOLS		URBAN SCHOOLS		TOTAL SCHOOLS	
HIGH	(>40%)	Delhi, Dadra & Nagar Haveli, Maharashtra, Himachal Pradesh, Gujarat, Tamil Nadu, Puducherry, Daman & Diu, Odisha, Kerala, and Chandigarh	(>40%)	Punjab, Delhi, Chandigarh, Dadra & Nagar Haveli, Maharashtra, Lakshadweep, Gujarat, Puducherry, and Mizoram	(>40%)	Dadra & Nagar Haveli, Delhi, Chandigarh, Maharashtra, Himachal Pradesh, Gujarat, Puducherry, Odisha, Tamil Nadu, and Kerala
MEDIUM	(20–40%)	Assam, West Bengal, Chhattisgarh, Madhya Pradesh, Karnataka, Lakshadweep, Rajasthan, Telangana, Manipur, Haryana, Goa, Bihar, Jharkhand, A & N Island, Uttar Pradesh, Andhra Pradesh, Mizoram, Meghalaya, and Nagaland	(20–40%)	Assam, Himachal Pradesh, Kerala, Odisha, Madhya Pradesh, Tamil Nadu, A & N Island, Chhattisgarh, Haryana, Manipur, Daman & Diu, Rajasthan, Karnataka, Tripura, West Bengal, and Uttar Pradesh	(20–40%)	Lakshadweep, Assam, Daman & Diu, Madhya Pradesh, Chhattisgarh, West Bengal, Manipur, Rajasthan, Karnataka, Haryana, Telangana, Mizoram, A & N Island, Bihar, Goa, Jharkhand, Uttar Pradesh, Meghalaya, Andhra Pradesh, and Nagaland
LOW	(<20%)	Uttarakhand, Arunachal Pradesh, Tripura, Jammu & Kashmir, Sikkim, and Punjab	(<20%)	Meghalaya, Jharkhand, Arunachal Pradesh, Goa, Bihar, Nagaland, Telangana, Andhra Pradesh, Jammu & Kashmir, Uttarakhand, and Sikkim	(<20%)	Uttarakhand, Arunachal Pradesh, Tripura, Jammu & Kashmir, Sikkim, and Punjab

Source: Researcher's Calculation from U-DISE data, 2017-18

Figure 3.17 Schools having Ramp Facility



Source: Map Prepared on ArcGIS from U-DISE Data, 2017-18

States/UTs like Dadra & Nagar Haveli (80.31%), Delhi (74.13%), Chandigarh (68.30%), Maharashtra (61.28%), Himachal Pradesh (57.17%), Gujarat (52.35%), Puducherry (45.49%), Odisha (41.54%), Tamil Nadu (40.82%), and Kerala (40.39%) have less than 40% Schools having ramp whereas states like Punjab(0.01%), Sikkim (10.62%), Jammu & Kashmir (14.34%), Tripura (16.14%), Arunachal Pradesh (16.88%), and Uttarakhand (19.56%) are having least percentage share of schools having ramp facility. Schools located in urban and rural areas having ramp facilities show prevailing differences in urban schools and rural schools. States/UTs like Chandigarh (32.68%), Lakshadweep (21.18%), and Mizoram (17.25%) have the highest differences between urban and rural schools having ramp facility. Overall, India has a peculiar scenario where the difference between urban schools having ramps and rural schools having ramps is -3.97 percent, illustrating high percentage schools having ramp facilities in rural areas as compared to schools in urban areas.

3.7 Accessibility Performance

Various indicators were used to measure and understand Accessibility like access to Primary and Upper Primary schools, Drinking water, Girl's toilet, Electricity, Computers, Ramp facility, classroom not in good condition, and Student classroom ratio. It is important to evaluate all states on their performance in terms of the provision of the accessibility of different indicators. On analyzing data, different states can be categorized based on performance in various indicators. As shown in table 3.5, it is evident that there are top-performing states as well as low performing states in different indicators. There are top 5 and bottom 5 performing states in each indicator as shown in table 3.5. Some states are common among all indicators in the Top 5 category and the Bottom 5 category, resulting in the state's overall performance either very good or very bad with respect to all nine indicators.

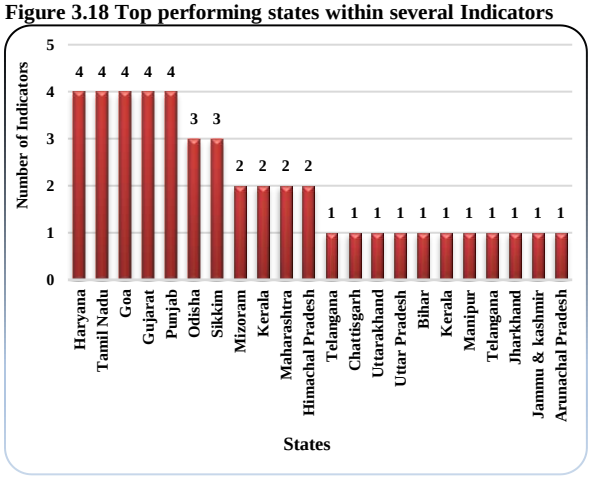
Table 3.5 Categorization of States on different Indicators

Indicators	Access to Primary School	Access to Upper Primary School	Access to Drinking Water	Access to Girl's Toilet	Access to Electricity	Access to Computers	Access to Ramp Facility	Classrooms not in Good Condition	Student classroom Ratio
Top Performing States	Telangana	Tamil Nadu	Goa	Manipur	Goa	Kerala	Maharashtra	Punjab	Sikkim
	Mizoram	Uttarakhand	Gujarat	Goa	Gujarat	Punjab	Himachal Pradesh	Goa	Jammu & Kashmir
	Haryana	Odisha	Haryana	Telangana	Tamil Nadu	Gujarat	Gujarat	Tamil Nadu	Himachal Pradesh
	Chhattisgarh	Uttar Pradesh	Punjab	Odisha	Punjab	Maharashtra	Odisha	Haryana	Arunachal Pradesh
	Kerala	Bihar	Kerala	Sikkim	Haryana	Sikkim	Tamil Nadu	Jharkhand	Mizoram
Least Performing States	Manipur	Manipur	Meghalaya	Meghalaya	Assam	Bihar	Punjab	Assam	Bihar
	Arunachal Pradesh	Nagaland	Bihar	Assam	Meghalaya	Assam	Sikkim	Meghalaya	Maharashtra
	Nagaland	Arunachal Pradesh	Assam	Bihar	Madhya Pradesh	Meghalaya	Jammu & Kashmir	Mizoram	Gujarat
	Jammu & Kashmir	Maharashtra	Tripura	Karnataka	Tripura	Chhattisgarh	Tripura	Manipur	Uttar Pradesh
	Meghalaya	Meghalaya	Nagaland	Nagaland	Odisha	Jharkhand	Arunachal Pradesh	Arunachal Pradesh	Goa

Source: Researcher's Calculation from U-DISE data, 2016-17-18

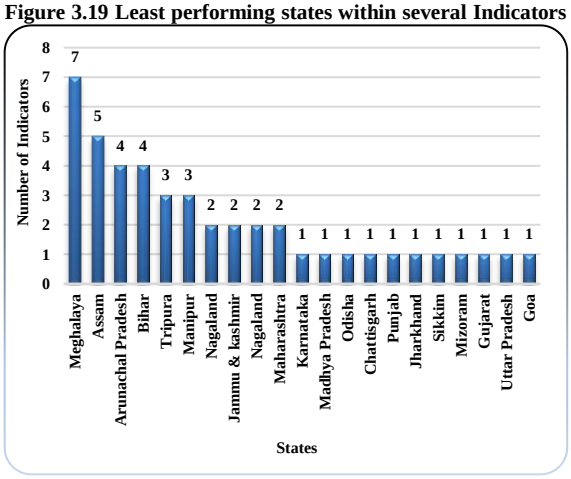
Among top-performing states, Haryana, Tamil Nadu, Goa, Gujarat, and Punjab have topped in 4 indicators out of nine indicators in comparison to other states, followed by Odisha, Sikkim, and Mizoram as shown in figure 3.18.

Figure 3.18 Top performing states within several Indicators



Source: U-DISE data, 2016-17-18

Figure 3.19 Least performing states within several Indicators



Source: U-DISE data, 2016-17-18

Whereas, among bottom-performing states, Meghalaya has a been in the Bottom 5 category for maximum no. of times i.e. 7 out of nine indicators in comparison to other states, followed by Assam (5), Arunachal Pradesh (4), and Bihar (4), as shown in Table 3.19. Besides inter-state performance variation, it is extremely important to understand the prevailing regional disparity. Table 3.6 shows the regional categorization of the 5 Top performing states in various indicators. Northern zone states have been in Top 5 Category for maximum times i.e. 11 times in various indicators as compared to other Zone states.

Table 3.6 Regional Categorization of Top Performing states in different Indicators

Regions	Northern Zone	Central Zone	Eastern Zone	Western Zone	Southern Zone	North-Eastern Zone
Top Performing States	Haryana	Chhattisgarh	Odisha	Goa	Telangana	Mizoram
	Haryana	Uttarakhand	Bihar	Gujarat	Kerala	Manipur
	Punjab	Uttar Pradesh	Odisha	Goa	Tamil Nadu	Sikkim
	Punjab		Odisha	Goa	Kerala	Sikkim
	Haryana		Jharkhand	Gujarat	Telangana	Sikkim
	Punjab			Gujarat	Tamil Nadu	Arunachal Pradesh
	Himachal Pradesh			Maharashtra	Kerala	Mizoram
	Punjab			Maharashtra	Tamil Nadu	
	Haryana			Gujarat	Tamil Nadu	
	Jammu &Kashmir			Goa		
	Himachal Pradesh					

Source: Researcher's Calculation from U-DISE data, 2017-18

Whereas the western zone states have been 10 times, and southern Zone states have been 9 times in Top 5 Category in various Indicators. Central Zone States, Eastern Zone States, and the North-Eastern Zone States are having very little participation in the Top 5 Category.

Besides, Top-performing zones, some zones perform poorly in the provision of accessibility to different indicators that show a big variation among states or regional disparity existing in India. Table 3.7 shows the regional categorization of the bottom 5 states in different indicators, where it is evident that the North-Eastern zone states have come up 28 times as compared to states from any other zones. Eastern zone is another zone of which states have been 6 times ranked in the Bottom 5 category, being followed by western zone with 4 times, Northern & central zone thrice and Southern Zone only once showing participation, showing clear evidence of regional disparity existing in performance of states within different zones in India. The provision of accessibility certainly leads to motivation for participation. Thus, Participation is another important parameter to assess the universalization of elementary education.

CHAPTER IV

STATUS OF PARTICIPATION IN ELEMENTARY EDUCATION

4.1 Introduction

The previous chapters discussed the availability of educational institutions and the related infrastructure available in those institutions at the national level. A trend analysis of the same was done for the post SSA phase to understand the progress we have made to make schooling accessible to children across different social, ethnic, caste, economic and regional groups in the states of our country. In continuation of examining the level of access that our country has achieved as a result of the input factors, this chapter further looks into outcomes of these inputs through the participation levels at the elementary level of schooling over the last two decades. The number of those enrolled in relation to the total population is a significant measure to comprehend the efforts made and how far have we reached in achieving our targets of universalization.

4.2 Understanding Educational Participation

Education in India was lagging at the time of independence with a literacy rate of only 18.33 percent in 1951. The GER during the time was a dismally low and became a big challenge for the government of India and since then government endeavored to focus on the provision of free and compulsory education to children up to the age of 14. A special focus was given to those belonging to the marginalized social groups, minorities, and females to ensure equality of opportunity in an inclusive educational set up by the government. The government of India under initiatives for the education sector, in the Tenth Plan, emphasized on Universalization of Elementary Education (UEE).

Participating in the educational system and further completing the cycle without dropping out is the main purpose of the education providers. The variety of inputs into the education system which also entails heavy financial investments are often characterized by a high percentage of failures, rejects, stagnations, and wastage. Participation and wastage indicators which are regarded as output indicators can be very appropriate measures to reflect on the reach and effectiveness of the education system.

Therefore, this section analyses educational participation at the elementary level of schooling along with the variations in unequal participation amongst the marginalized social and gender groups. The relevant age group for enrolment in grades I-VIII is 6-14 years. Universalization of Elementary Education means that each child aged between 6-14 years should essentially be enrolled in the Elementary Schooling system in the age-appropriate grade. Educational Participation in simple terminology is the number of those enrolled in any institution in relation to the total population size. In an ideal situation, all those in that age group should be enrolled in the age group of 6 to 14 years under the RTE.

Participation in education is measured in the form of enrolment rates. Enrolment rates again can be of various types, specific to the enrolment according to the age, grade, population size, and the level of education for which we want to calculate it. In the following sections, we will discuss some of these different techniques used to calculate enrolment rates. To develop an understanding of the status of Participation of these children in the Elementary Schooling system, two important indicators i.e. the Gross Enrolment Ratio (GER) and Net Enrolment Ratio(NER) have been integrated for all states/UTs to analyze it in detail.

4.2.1 Total Enrolments

Figure 4.1 shows the enrolment from 2007-08 to 2017-18 at the Primary, Upper Primary, and Elementary levels. There has been an upward trend till 2012-13, whereas over the years it shows a constant decline in enrolment after 2012-13 till the year 2017-18. Thus, the Participation of Students at primary and Upper Primary levels has been studied in terms of the Enrolment Ratios, the Out of School Children at the elementary level in the 6-14 Year age group, and their gender distributions in Elementary Schools.

Figure 4.1 Total Enrolment at Primary, Upper Primary, and Elementary level

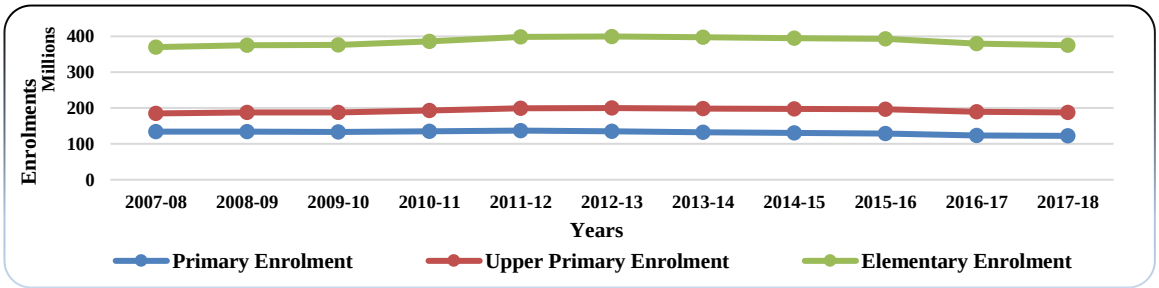
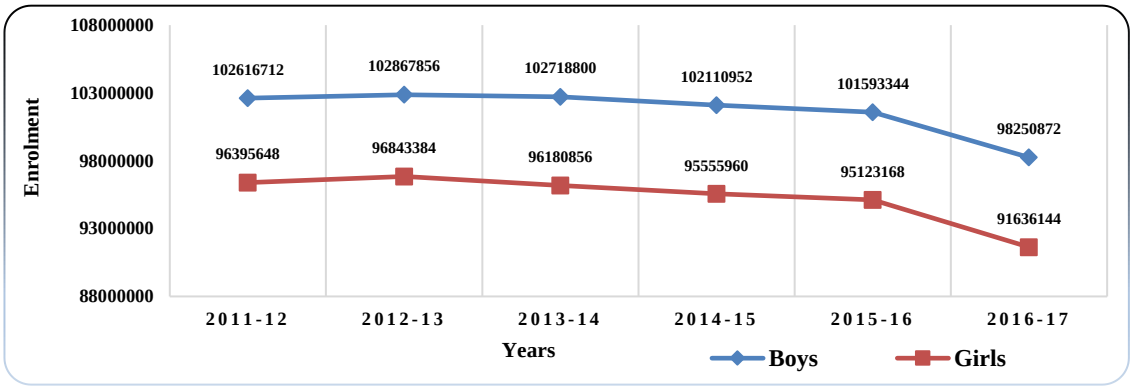


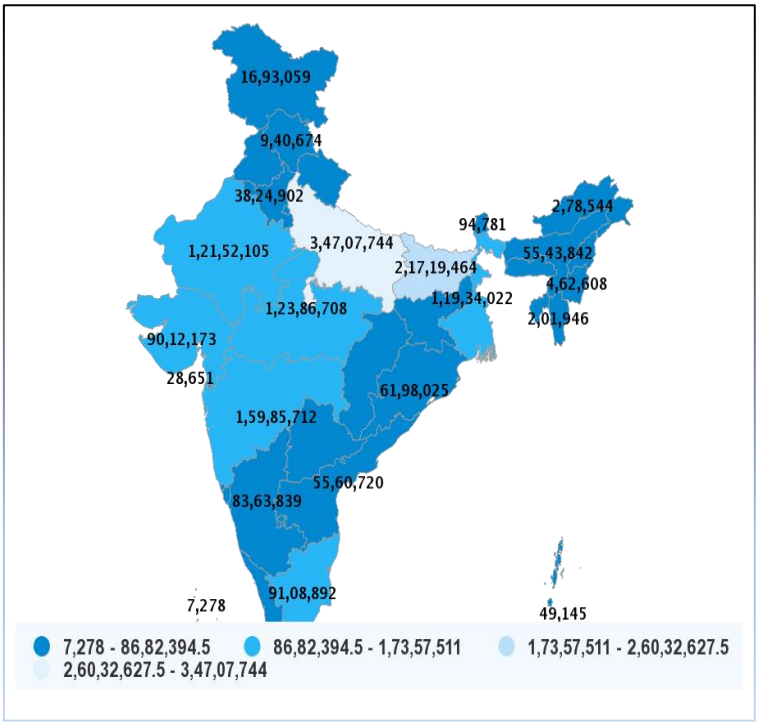
Figure 4.2 Total Elementary Enrolment by Gender



Source: U-DISE Data, 2016-17

Besides overall enrolment, there are enrolment differences by gender as shown in figure 4.2. since 2013, the overall enrolment of boys and girls are continuously declining till 2016-17. The reason being as the birth rate of India continues to have a similar trend with impacting the age bracket of 6-14 yrs. school-going age group and the enrolments tend to show a declining trend as seen as well in overall total elementary enrolment in figure 4.1.

Figure 4.3: Total Elementary Enrolment, 2016-17

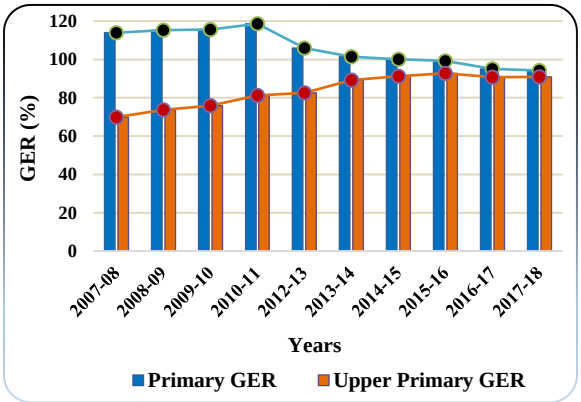


Source: U-DISE Data, 2016-17

Figure 4.3 shows the distribution of elementary enrolments in different states for the year 2016-17. Uttar Pradesh has the highest total elementary enrolment, followed by Bihar, Maharashtra, Madhya Pradesh, Rajasthan, and West Bengal having more than 11 million elementary enrolments. Whereas states like Sikkim, Goa, Mizoram, Arunachal Pradesh, and Nagaland have the lowest Elementary enrolments. Whereas Lakshadweep has the lowest elementary enrolment of mere 7278 children in India among all states and UTs.

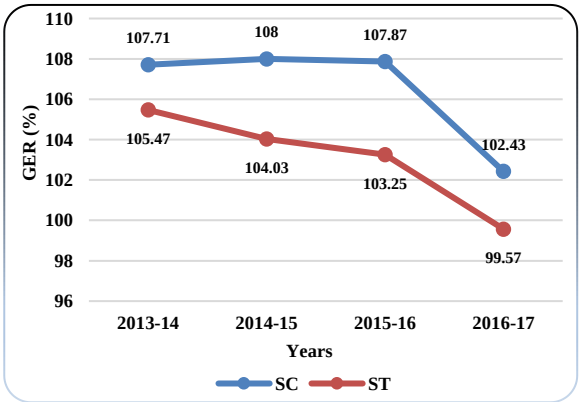
4.2.2 Gross Enrolment Ratios: The Right to Education Act mandates all children in the age groups 6-14 years to be enrolled in schools. If the same was followed as a compulsion the enrolment rates at the elementary level of schooling would have been 100 percent across different states, religions, social groups, etc. unfortunately it is not as expected. The actual reflection of the access that we have created should be reflected in these enrolment rates. Gross Enrollment Ratios (GER) is defined as the percentage share of enrolments to the total population in that relevant age group. This is a basic methodology to calculate the enrollment at a stage of the education system but is also criticized because it does not rule out the factor of the number of underage and overage children enrolled in the particular grade or level. An outcome of which is that the GER in many cases exceeds 100%, which indicates that there is a proportion of overage and underage children enrolled in that level or grade of education. Share of the population within the 0-14 age group was around 31.64% of the total population and the same share declined to 27.05% in 2018.

Figure 4.4 Gross Enrolment Ratio, 2008-18



Source: Researcher's Calculation from U-DISE data, 2017-18

Figure 4.5 Gross Enrolment Ratio by social groups



Source: U-DISE data, 2017-18

Figure 4.4shows a large gap between primary GER and Upper Primary GER for the year 2007-08. Whereas this gap has continuously decreased from a 44% gap in 2007-08 to reach a mere 3.31% gap between the Primary and Upper Primary GER indicating high retention for upper primary after the primary level of education. GER for 2011-12 has not been computed as the 2011 Census-based child population is not yet available. Whereas in figure 4.5 gross enrolment ratio among scheduled castes and scheduled tribes have been shown and it is evident that GER of scheduled castes has been more than 100 percent for all 4 years and more as compared to GER of schedules tribes with a continuous declining trend over 4 years as shown in figure 4.5. There is variation in Gross Enrolment Ratio among states and similarly, variation prevails among the Boys and Girls GERin different states/UTs. As per Table 4.1, there are 11 states which have more than 100% GER indicating a high degree of participation, belong to official age, or maybe not. GER value exceeding 100% indicates that a state is, in principle, able to accommodate all of its school-age population, but it does not indicate the proportion already enrolled.

Table 4.1Categorization of States with Gross Enrolment Ratio

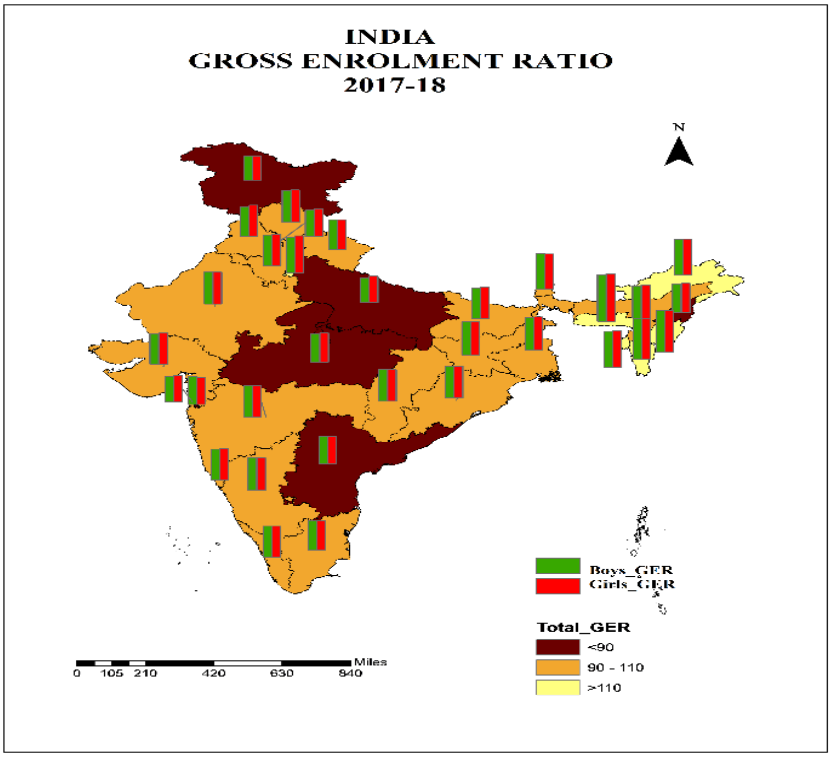
	BOY'S GER		GIRL'S GER		GER	
HIGH	(>110%)	Meghalaya, Manipur, Mizoram, and Tripura	(>110%)	Meghalaya, Manipur, Mizoram, Delhi, Tripura, and Arunachal Pradesh	(>110%)	Meghalaya, Manipur, Mizoram, Delhi, Tripura, and Arunachal Pradesh
MEDIUM	(90-110%)	Arunachal Pradesh, Sikkim, Delhi, Karnataka, Jharkhand, Himachal Pradesh, Assam, West Bengal, Chhattisgarh, Rajasthan, Maharashtra, Odisha, Goa, Haryana, Telangana, Kerala, Gujarat, Bihar, Punjab, Uttarakhand, and Tamil Nadu	(90-110%)	Sikkim, Assam, West Bengal, Jharkhand, Bihar, Haryana, Goa, Karnataka, Himachal Pradesh, Punjab, Maharashtra, Chhattisgarh, Rajasthan, Gujarat, India, Odisha, Kerala, Telangana, Tamil Nadu, Uttarakhand, Nagaland, Chandigarh, and Madhya Pradesh	(90-110%)	Sikkim, Jharkhand, Assam, West Bengal, Karnataka, Himachal Pradesh, Goa, Chhattisgarh, Maharashtra, Haryana, Bihar, Rajasthan, Odisha, Punjab, Gujarat, Kerala, Telangana, Tamil Nadu, and Uttarakhand
LOW	(<90%)	Madhya Pradesh, Nagaland, Dadra & Nagar Haveli, Andhra Pradesh, A & N Island, Chandigarh, Lakshadweep, Daman & Diu, Uttar Pradesh, Puducherry, and Jammu & Kashmir	(<90%)	Daman & Diu, Uttar Pradesh, Puducherry, Andhra Pradesh, Dadra & Nagar Haveli, A & N Island, Jammu & Kashmir, and Lakshadweep	(<90%)	Nagaland, Madhya Pradesh, Chandigarh, Andhra Pradesh, Dadra & Nagar Haveli, A & N Island, Daman & Diu, Uttar Pradesh, Puducherry, Jammu & Kashmir, and Lakshadweep

Source: Researcher's calculation from U-DISE data, 2017-18

Overall, India has 90.03 percent GER and States like Jammu & Kashmir, Uttar Pradesh, Madhya Pradesh, Nagaland, and Andhra Pradesh have GER below 90. Whereas there few northeastern states like Arunachal Pradesh, Manipur, Mizoram, Meghalaya, Tripura, and UT like Delhi which has GER value of more the 110 shown in figure 4.6. The difference between Girl's GER (95.58%) and Boy's GER (90.78%) is 4.80 percent

with Girl's GER more than Boy's GER. Delhi, Chandigarh, Bihar, and Meghalaya are few top states/UTs having more than 7% of the difference with Girl's GER more than Boy's GER indicating high girl's participation. Whereas only a few states/UTs like A & N Islands and Andhra Pradesh are having more Boy's GER than Girl's GER.

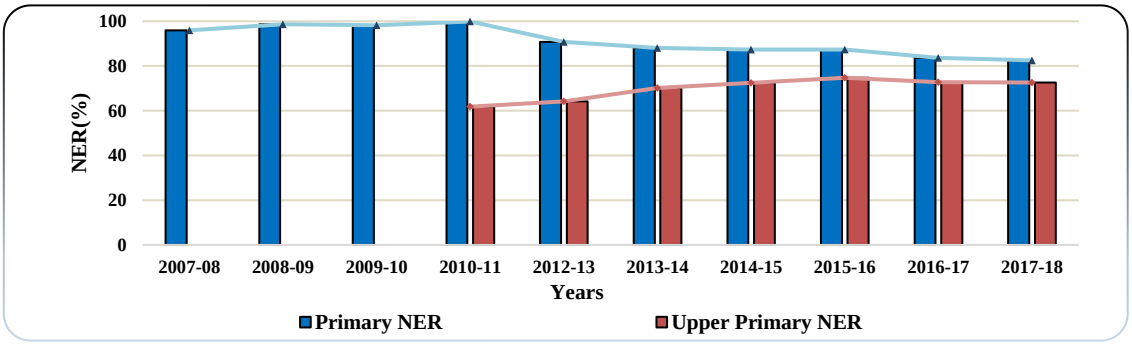
Figure 4.6 Gross Enrolment Ratios



Source: Map Prepared on ArcGIS from U-DISE Data, 2017-18

4.2.3 Net Enrolment Ratios: Net Enrollment Ratio (NER) in contrast to the GER discussed above is a slightly refined measure as it does not take into account the number of overage and underage children enrolled in the education system. It is the percentage of the number of pupils enrolled in a specific age group (6-14 years)studying the relevant to the grades (I-VIII) with the total population in the age group (6-14 years). This method is more relevant as it gives us the enrollment according to the age cohort and the NER usually can never exceed 100 percent and is usually less than the calculated GER for a level or grade. NER becomes more significant as research evidence in many cases has indicated that age appropriated learning is highly significant in the early stages of learning.

Figure 4.7: Net Enrolment Ratio- 2008-18



Source: Researcher's Calculation from U-DISE data, 2017-18

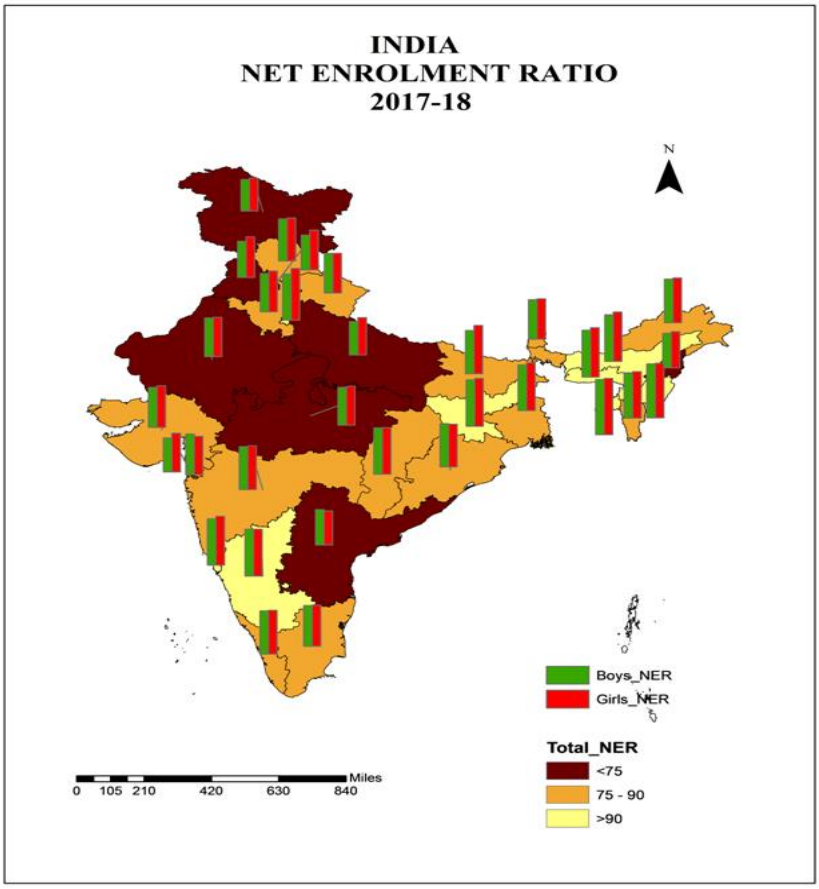
Figure 4.7 shows the Net Enrolment Ratio at primary and upper primary levels from 2008 to 2018. It shows a large gap between primary NER and Upper Primary NER for the year 2010-11. Whereas this gap has continuously decreased from a 38% gap in 2010-11 to reach a 9.91% gap between the Primary and Upper Primary NER indicating high retention of official age group children at upper primary after the primary level of education. NER for the years 2007-08, 2008-09, and 2009-10 are unavailable for the upper primary level whereas NERfor the year 2011-12 has not been computed as 2011 Census-based child population is not yet available as per udise. There is variation in Net Enrolment Ratio among states/UTs and similarly, variation prevails among the Boys and Girls NER in different states/UTs.

Table 4.2 Categorization of States with Net Enrolment Ratio

		BOYS NER		GIRLS NER		NER
HIGH	(>90%)	Tripura, Manipur, Meghalaya and Karnataka	(>90%)	Tripura, Manipur, Delhi, Assam, Meghalaya, Goa, Bihar, Jharkhand, West Bengal, Chhattisgarh, and Karnataka	(>90%)	Tripura, Manipur, Delhi, Meghalaya, Assam, Goa, Jharkhand and Karnataka
MEDIUM	(75-90%)	Assam, Jharkhand, Chhattisgarh, Goa, Delhi, West Bengal, Mizoram, Arunachal Pradesh, Kerala, Odisha, Bihar, Maharashtra, Himachal Pradesh, Tamil Nadu, Dadar & Nagar Haveli, Gujarat, Uttarakhand, Sikkim, and Telangana	(75-90%)	Mizoram, Arunachal Pradesh, Maharashtra, Kerala, Himachal Pradesh, Odisha, Gujarat, Tamil Nadu, Punjab, Haryana, Sikkim, Chandigarh, Uttarakhand, Telangana, and Rajasthan	(75-90%)	Chhattisgarh, West Bengal, Mizoram, Bihar, Arunachal Pradesh, Kerala, Maharashtra, Odisha, Himachal Pradesh, Tamil Nadu, Gujarat, Sikkim, Dadar & Nagar Haveli, Uttarakhand, Haryana, and Telangana
LOW	(<75%)	Rajasthan, Haryana, Andaman & Nicobar Islands, Lakshadweep, Madhya Pradesh, Punjab, Andhra Pradesh, Chandigarh, Nagaland, Daman & Diu, Uttar Pradesh, Jammu & Kashmir, and Puducherry	(<75%)	Daman & Diu, Madhya Pradesh, Dadar & Nagar Haveli, Uttar Pradesh, Nagaland, Andaman & Nicobar Islands, Andhra Pradesh, Lakshadweep, Puducherry, and Jammu & Kashmir	(<75%)	Rajasthan, Punjab, Madhya Pradesh, Chandigarh, Andaman & Nicobar Islands, Daman & Diu, Lakshadweep, Nagaland, Uttar Pradesh, Andhra Pradesh, Jammu & Kashmir, and Puducherry

Source: Researcher's calculation from U-DISE data, 2017-18

Figure 4.8 Net Enrolment Ratios



Source: Map Prepared on ArcGIS from U-DISE Data, 2017-18

There are 8 states which have more than 90% NER indicating a high degree of participation in a state and principle, able to accommodate all of its official school-age population. There are as many as 16 states/UTs which lie in the range of 75 to 90% NER whereas 12 states/UTs have less than 75% NER as shown in Table 4.2. Puducherry has the lowest NER in the country i.e. 59.91 percent whereas Tripura and Manipur have achieved 100 percent. Overall, India has 79 percent NER and the difference between Girl's NER (81.26%) and Boy's NER (76.99%) is 4.27 percent with Girl's NER more than Boy's NER. Delhi, Chandigarh, Bihar, Daman & Diu, and Punjab are view top states/UTs having more than 7% of the difference with Girl's NER more than Boy's NER indicating high official age-group girls participation. Few states/UTs like Lakshadweep, Dadar & Nagar Haveli, A & N Islands, Andhra Pradesh, and Odisha have more Boy's NER than Girl's NER.

4.2.4 Gender Parity Index: Gender Parity at the Elementary Level of education is an issue in India. Most of the states in the country have less than 50 percent of girls' enrolment to total enrolment at the elementary level of education as per UDISE data 2017-18. Table 4.3 shows the percentage of girl's enrolment to total enrolment at elementary Level for the year 2007-08 & 2017-18 with a decadal gap.

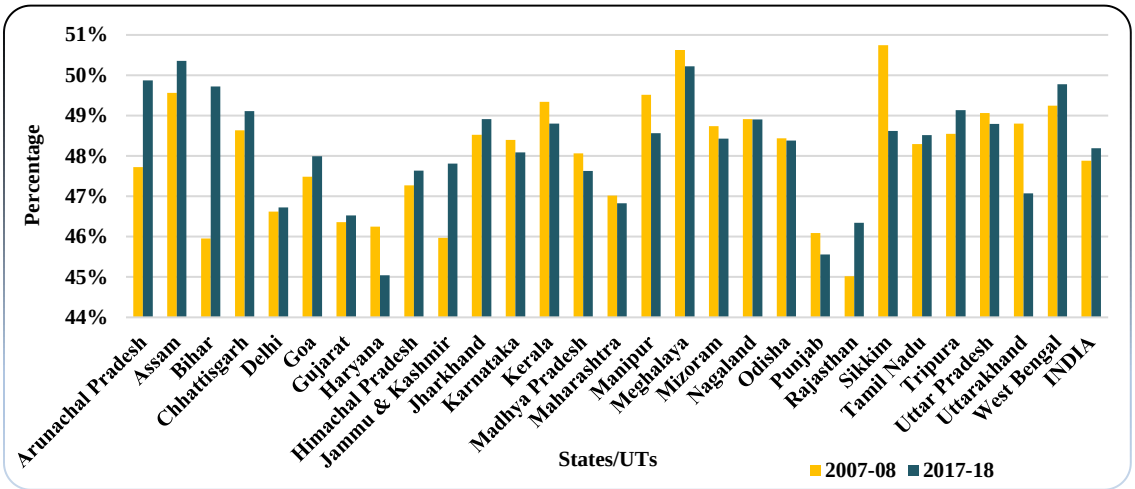
Table 4.3 Percentage of Girls Enrolment to Total Enrolment at Elementary Level

States/UTs	Percentage of Girl's Students to Total Enrolment	
	2007-08	2017-18
Arunachal Pradesh	48%	50%
Assam	50%	50%
Bihar	46%	50%
Chhattisgarh	49%	49%
Delhi	47%	47%
Goa	47%	48%
Gujarat	46%	47%
Haryana	46%	45%
Himachal Pradesh	47%	48%
Jammu & Kashmir	46%	48%
Jharkhand	49%	49%
Karnataka	48%	48%
Kerala	49%	49%
Madhya Pradesh	48%	48%
Maharashtra	47%	47%
Manipur	50%	49%
Meghalaya	51%	50%
Mizoram	49%	48%
Nagaland	49%	49%
Odisha	48%	48%
Punjab	46%	46%
Rajasthan	45%	46%
Sikkim	51%	49%
Tamil Nadu	48%	49%
Telangana	49%	48%
Tripura	49%	49%
Uttar Pradesh	49%	49%
Uttarakhand	49%	47%
West Bengal	48%	50%
All States	**48%**	**48%**

Source: Calculation based on U-DISE data, 2017-18

State-wise variation in the percentage of girl's enrolment at the elementary level for the year 2007-08 & 2017-18 with a gap of a decade to analyze the progress has been shown in Figure 4.9. The percentage of girls' enrolment to total enrolment has increased from 2007-08 to 2017-18 in 8 states i.e. Arunachal Pradesh, Assam, Bihar, Goa, Jammu & Kashmir, Rajasthan, Tripura, and West Bengal out of which Bihar has witnessed the highest growth of 4% girls' enrolment to total enrolment as 46% in 2007-08 and 50% in 2017-18 of girls' enrolment to total enrolment. Haryana, Kerala, Manipur, Punjab, Sikkim, and Uttarakhand are the states showing a negative growth whereas as many as 13 states show no growth at all in 2007-08 & 2017-18.

Figure 4.9 State/UTs-wise Percentage of Girls Enrolment at Elementary level



Source: Researcher's Calculation from U-DISE data,2007-08 & 2017-18

Arunachal Pradesh, Assam, Bihar, Meghalaya, and West Bengal are the only states showing 50 percent enrolment of girls as per the 2017-18 data. On average, the percentage of Girls enrolment at elementary level has remained the same as in 2007-08 & 2017-18 as 48%. In 13 states, the percentage of girls' enrolment to total enrolment was higher than overall India's average in 2007-08 but the number of states increased and 14 states became marginally higher than the state average in the year 2017-18.

Overall, as shown in Table 4.4, the Gender Parity at the Elementary Education level has increased from 0.92 in 2007-08 to 0.93 in 2017-18. However, there is a lot of inter-state variation regarding the same. There were 11 states which had a GPI lower than the country's average in the year 2007-08 whereas, the number of states below the national average has remained the same even for the year 2017-18. The state-wise Gender Parity Indices have been shown in Table 4.4 of two different years' i.e. 2007-08 & 2017-18 with a decadal gap.

Table 4.4 State/UTs-wise Gender Parity Index at Elementary Level

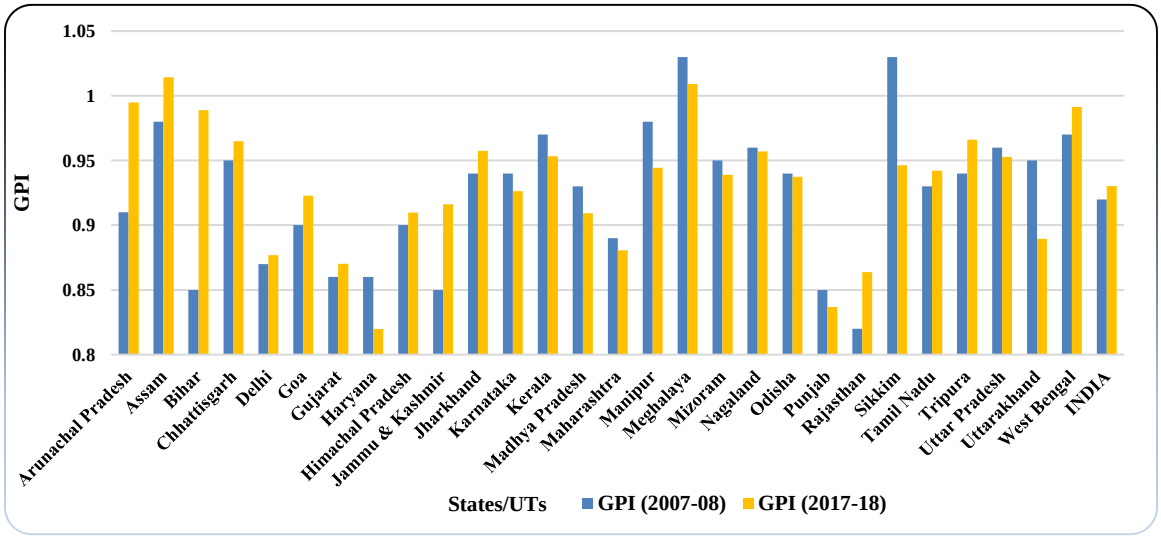
State/UTs	Gender Parity Index	
	GPI 2007-08	GPI 2017-18
Arunachal Pradesh	0.91	0.99
Assam	0.98	1.01
Bihar	0.85	0.99
Chhattisgarh	0.95	0.96
Delhi	0.87	0.88
Goa	0.9	0.92
Gujarat	0.86	0.87

Haryana	0.86	0.82
Himachal Pradesh	0.9	0.91
Jammu & Kashmir	0.85	0.92
Jharkhand	0.94	0.96
Karnataka	0.94	0.93
Kerala	0.97	0.95
Madhya Pradesh	0.93	0.91
Maharashtra	0.89	0.88
Manipur	0.98	0.94
Meghalaya	1.03	1.01
Mizoram	0.95	0.94
Nagaland	0.96	0.96
Odisha	0.94	0.94
Punjab	0.85	0.84
Rajasthan	0.82	0.86
Sikkim	1.03	0.95
Tamil Nadu	0.93	0.94
Tripura	0.94	0.97
Uttar Pradesh	0.96	0.95
Uttarakhand	0.95	0.89
West Bengal	0.97	0.99
All States	**0.92**	**0.93**

Source: Calculation based on U-DISE data,2007-08 & 2017-18

State-wise Gender Parity has been shown in Figure 4.10 of two different years' i.e.2007-08 & 2017-18 in order to analyze the progress of different states with a decadal gap.

Figure 4.10 State/UTs-wise Gender Parity Index at Elementary Level

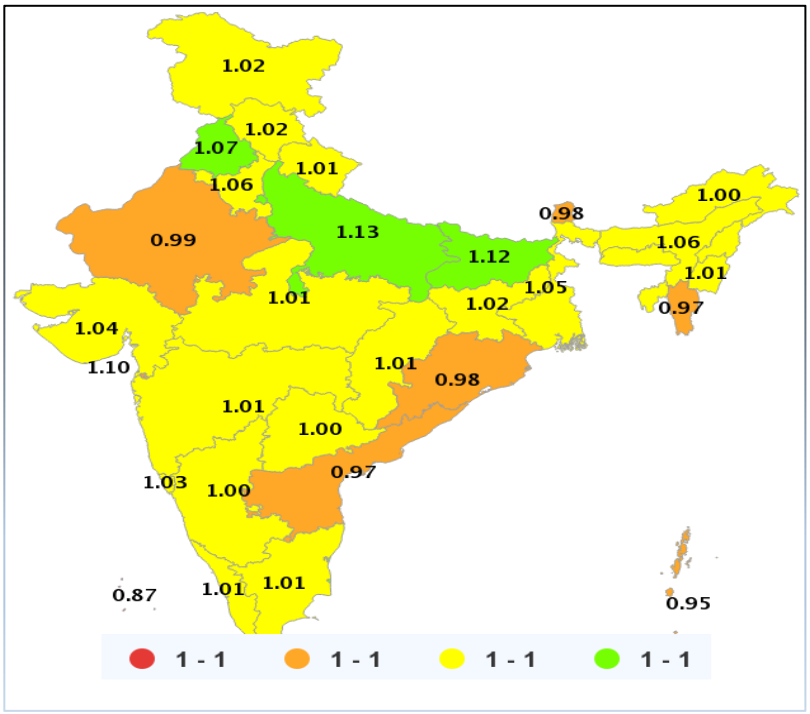


Source: Researcher's Calculation from U-DISE data, 2007-08 &2017-18

As per udise data 2017-18, there are seven states/UTs such as Haryana (0.82), Punjab (0.84), Rajasthan (0.86), Gujarat (0.87), Delhi (0.88), Maharashtra (0.88), and Uttarakhand (0.89) which have a low GPI value of less than 0.90. Whereas there are only two states i.e. Assam (1.01), and Meghalaya (1.01) which have more than GPI value of 1,

out of which Assam has progressed against the year 2007-08 which had a GPI value of 0.98 whereas Meghalaya came down to the GPI value of 1.01 in 2017-18 against the value of 1.03 in 2007-08. Bihar is the only state which has made a remarkable improvement over a decade from a GPI value of 0.85 for the year 2007-08 to a GPI value of 0.99 for the year 2017-18 with an increment of 0.14 being highest among all states. There are several states such as Sikkim, Uttarakhand, Haryana, Manipur, Meghalaya, Madhya Pradesh, Kerala, Karnataka, Punjab, Mizoram, Maharashtra, and Uttar Pradesh which have its declined GPI value for the year 2017-18 as compared to 2007-08, which is a matter of concern for states to relook and come closer to GPI value of 1 rather than moving backward to bring in equity among boys and girls. As per udise data 2017-18, 5 states with the highest GPI values are a part of the North-East or Eastern region of India whereas 5 states with least GPI values are part of the North/Western region of India.

Figure 4.11 GPI in GER at Elementary Level, 2016-17



Source: U-DISE data, 2016-17

Figure 4.11 shows different states having different GPI in GER values at the elementary level for the year 2016-17. There are 24 states which have a GPI Value of more than 1. States/UTs like Uttar Pradesh, Bihar, Chandigarh, Puducherry, Daman &

Diu, Delhi, and Punjab are among the states with the highest GPI values. Whereas there are 8 states/UTs that have a GPI value of less than 1.

4.3. Internal Efficiency

Efficiency is the capacity of a system to function and perform the designated task properly and give desired results/outputs. Internal Efficiency of education, therefore measures how efficient our education system has been in minimizing the inputs that have gone into producing maximum outputs. Getting better results/output will mean the system is more efficient while producing worse/bad results/output means the system is not that inefficient. It becomes imperative to study the efficiency to understand how well we are doing and how far we have reached in being able to retain those enrolled in the system until the completion of the cycle.

Student Flow Rates are one of the measures used to calculate the efficiency of an education system. The proportion of those who enroll in an education cycle can have three eventualities. Either they can get promoted and stay in the system, or they can fail and repeat the grade and still stay in the system or they can discontinue and drop out of the system. Therefore promotion rate, Repetition rates, and dropout rates are calculated to measure the student flow rates. But all students are promoted from one grade to another at the elementary level since there was a no Detention Policy under the RTE Act for the elementary level until Jan 2019. The Student Flow Rates have been studied in terms of the Promotion, Repetition, and Drop-out rates for primary and upper primary level of the cohort year 2017-2018. The U-DISE data of the year 2017-18 has been consolidated to analyze the performance and existing variation among states/UTs. The state-wise student flow rates have been shown in Table 4.5 with Average Promotion, Repetition, and Drop-out rates for primary and upper primary level of the cohort year 2017-2018.

Table 4.5 Student Flow Rates at Primary and Upper Primary Level

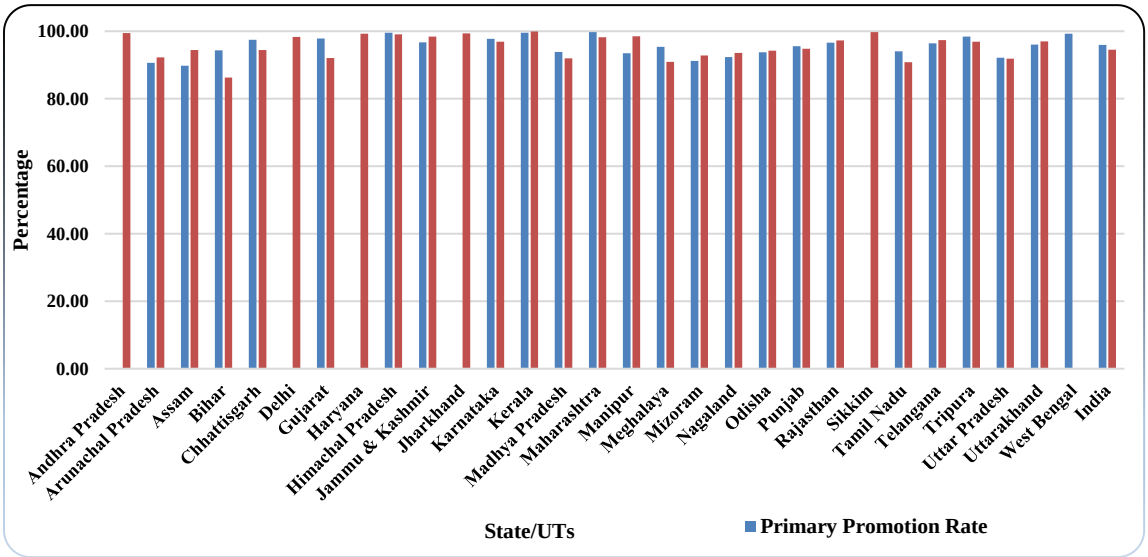
States_UTs	Primary			Upper Primary		
	Promotion Rate	Repetition Rate	Dropout Rate	Promotion Rate	Repetition Rate	Dropout Rate
A & N Island	99.15	0.63	0.22	NA	0.14	NA
Andhra Pradesh	NA	0.36	NA	99.48	0.28	0.24
Arunachal Pradesh	90.68	1.19	8.13	92.2	0.56	7.24
Assam	89.76	0.16	10.08	94.39	0.25	5.36
Bihar	94.32	0.63	5.05	86.27	0.45	13.28

Chandigarh	NA	0.47	NA	NA	0.41	NA
Chhattisgarh	97.42	0.72	1.86	94.4	0.61	4.99
Dadra & Nagar Haveli	99.15	0.77	0.08	96.8	0.94	2.26
Daman & Diu	99.61	0.03	0.36	98.19	0.07	1.74
Delhi	NA	0.07	NA	98.34	0.11	1.55
Goa	NA	0.43	NA	NA	0.6	NA
Gujarat	97.86	0.47	1.67	92.09	0.4	7.51
Haryana	NA	0.41	NA	99.23	0.37	0.4
Himachal Pradesh	99.54	0.45	0.01	99.03	0.41	0.56
Jammu & Kashmir	96.7	0.36	2.94	98.38	0.38	1.24
Jharkhand	NA	0.89	NA	99.39	0.59	0.02
Karnataka	97.76	0.57	1.67	96.85	0.55	2.6
Kerala	99.58	0.28	0.14	99.95	0.22	-0.17
Lakshadweep	NA	1.41	NA	96.64	1.55	1.81
Madhya Pradesh	93.87	2.16	3.97	91.98	1.6	6.42
Maharashtra	99.74	0.06	0.2	98.26	0.02	1.72
Manipur	93.49	3.09	3.42	98.54	0.92	0.54
Meghalaya	95.4	2.87	1.73	90.88	3.21	5.91
Mizoram	91.16	0.83	8.01	92.86	0.17	6.97
Nagaland	92.34	3.03	4.63	93.6	2.52	3.88
Odisha	93.73	0.45	5.82	94.22	0.41	5.37
Puducherry	96.78	0	3.22	98.07	0	1.93
Punjab	95.6	1.48	2.92	94.77	1.2	4.03
Rajasthan	96.59	0	3.41	97.25	0	2.75
Sikkim	NA	0.52	NA	99.76	0.36	-0.12
Tamil Nadu	94.02	0.05	5.93	90.81	0.06	9.13
Telangana	96.4	0.07	3.53	97.36	0.02	2.62
Tripura	98.41	0.69	0.9	96.89	0.49	2.62
Uttar Pradesh	92.15	0.67	7.18	91.83	0.78	7.39
Uttarakhand	96.04	0.57	3.39	96.99	0.57	2.44
West Bengal	99.22	0.57	0.21	NA	0.42	NA
India	**95.9**	**0.59**	**3.51**	**94.49**	**0.49**	**5.02**

Source: U-DISE data, 2017-18

As per the above table, there is inter-state variation among Promotion rates, Repetition rates, and Dropout rates as variables of flow rates at the primary and upper primary level of education showing a distinctive scenario prevailing in the country where schemes have aimed to provide quality elementary education to all children in the age group of 6-14 years as per RTE. Figure 4.12 shows the average promotion rate at the Primary and Upper Primary levels of various state/UTs. As many as 4 states data is unavailable at the primary level whereas only 1 state has data missing at the Upper Primary level. Bihar and Gujarat are the few states which have a big difference of 8.05% and 5.77% respectively between Primary and Upper Primary Level Promotion rate indicating a rise in repeaters and dropouts at the upper primary level. Whereas, states like Manipur and Assam have higher promotion rates at the Upper Primary level as compared to the Primary level indicating more repeaters and dropouts at a primary level only stating a matter of concern of being repeaters or dropouts at such an early stage of schooling.

Figure 4.12Average Promotion Rate at Primary and Upper Primary Level



After analyzing figure 4.12, it can be stated that there is variation among states in average promotion rates at the primary level as well as at the upper primary level. So, it can be categorized with States having high and low promotion rates at primary and Upper Primary Level as shown below in Table 4.6.

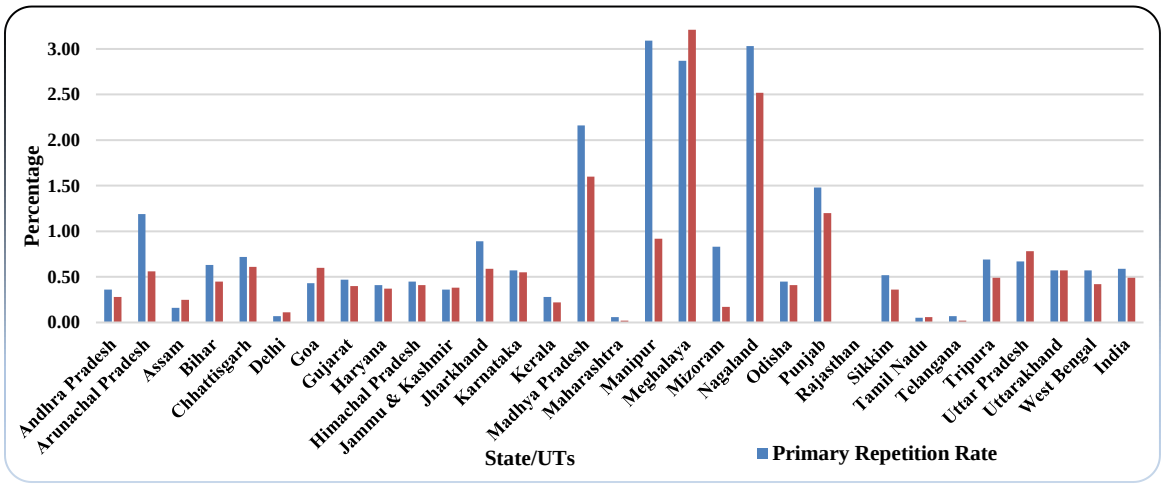
Table 4.6 Categorization of States with Promotion Rate

	Primary Promotion Rate	Upper Primary Promotion Rate
States with high Promotion Rate	Maharashtra, Kerala, Himachal Pradesh, West Bengal, and Tripura	Kerala, Sikkim, Andhra Pradesh, Jharkhand, and Haryana
States with Low Promotion Rate	Assam, Arunachal Pradesh, Mizoram, Uttar Pradesh, and Nagaland	Bihar, Tamil Nadu, Meghalaya, Uttar Pradesh, and Madhya Pradesh

Source: Researcher's calculation from U-DISE data, 2017-18

Figure 4.13 shows the Average Repetition Rate at Primary and Upper Primary level of various state/UTs. Manipur is the only state which has a big difference of 2.17% between Primary and Upper Primary Level Repetition rate indicating a majority repeaters at a primary level rather than Upper primary level. Whereas, states like Meghalaya, Goa, Uttar Pradesh, Assam, Delhi, Jammu & Kashmir, and Tamil Nadu have higher Repetition rate at Upper Primary level as compared to Primary level indicating more repeaters at Upper Primary level only stating a matter of concern of being repeaters at such an early stage of schooling. Rajasthan is the only state which has zero Repetition Rate at both Levels i.e. Primary and Upper Primary. However, Uttarakhand is the only state which has the same average repetition rate at the primary level as well as at the upper primary level.

Figure 4.13 Average Repetition Rate at Primary and Upper Primary Level



Source: U-DISE data, 2017-18

However, after analyzing figure 4.13, there is variation among states in average repetition rates. So, States can be categorized within the categories of states with high and low repetition rates at primary and Upper Primary Level as shown below in Table 4.7.

Table 4.7 Categorization of States with Repetition Rate

	Primary Repetition Rate	Upper Primary Repetition Rate
States with low Repetition Rate	Rajasthan, Tamil Nadu, Maharashtra, Telangana, and Delhi	Rajasthan, Telangana, Maharashtra, Tamil Nadu, and Delhi
States with high Repetition Rate	Manipur, Nagaland, Meghalaya, Madhya Pradesh, and Punjab	Meghalaya, Nagaland, Madhya Pradesh, Punjab, and Manipur

Source: Researcher's calculation from U-DISE data, 2017-18

Figure 4.14 Dropout Rate at Primary and Upper primary level

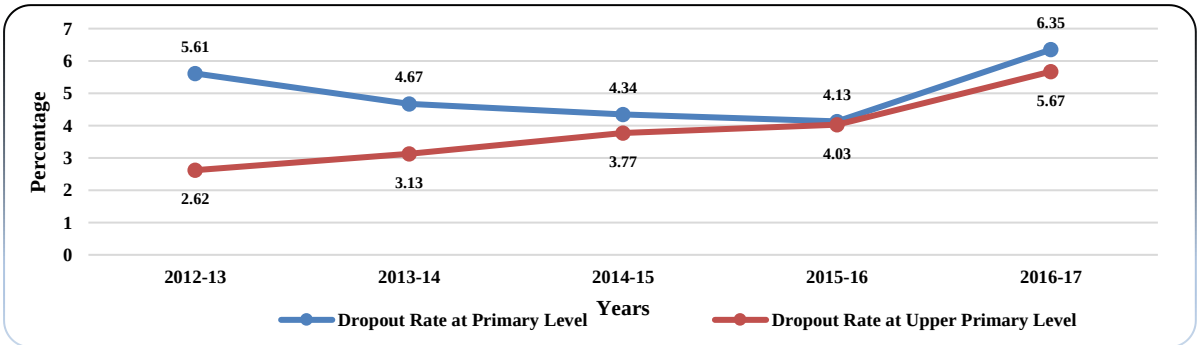
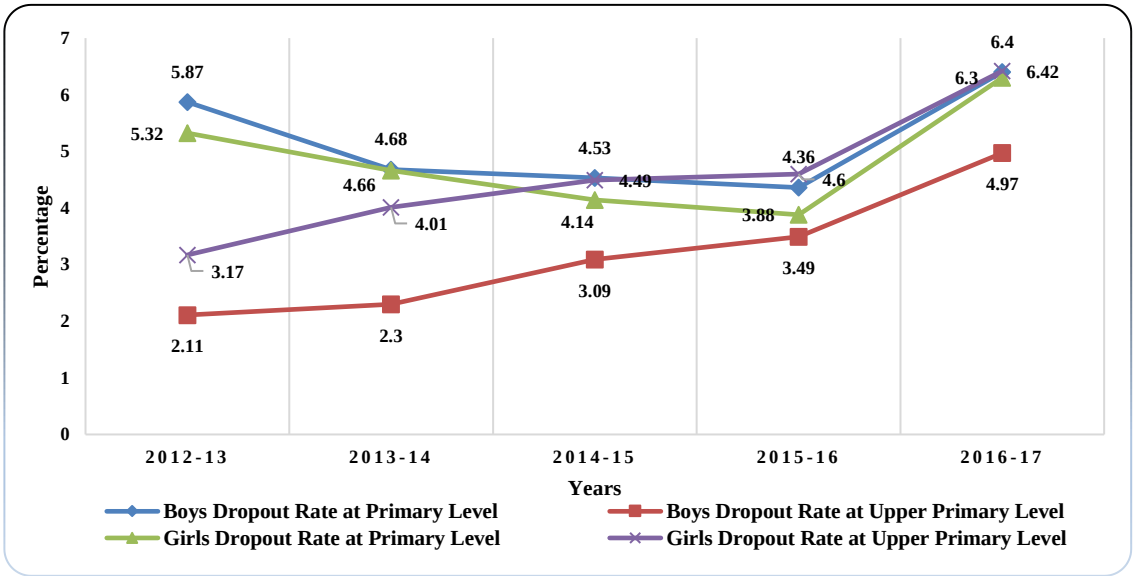


Figure 4.14 shows the average dropout rate at the primary and upper primary levels over 5 years from 2012-13 to 2016-17. The dropout rate has decreased from 2012-13 at the primary level till 2015-16 and it increased again in the year 2016-17. Whereas

the dropout rate has been on a continuous rise since 2012 at the upper primary level as well. This is a matter of concern that why the dropout rate has been rising in these years.

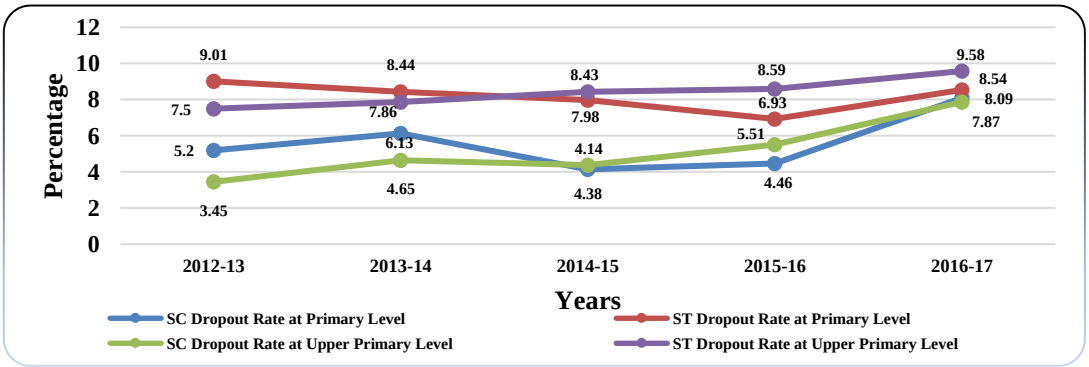
Figure 4.15 Dropout Rate by gender at Primary and upper primary level



Source: Researcher's calculation from U-DISE data, 2016-17

Figure 4.15 shows boy's and girl's dropout rates at the primary and upper primary levels. The dropout rate at the primary level shows moreover stagnant over 5 years from 2012 to 2017. But at the upper primary level, the trend shows a continuous increase in dropout percentage among both girls as well as boys. Moreover in 2012 dropout rate at the upper primary level had been lesser than the primary level but the dropout rate at primary as well as upper primary level has reached almost the same percentage share in the year 2016-17 among both boys and girls.

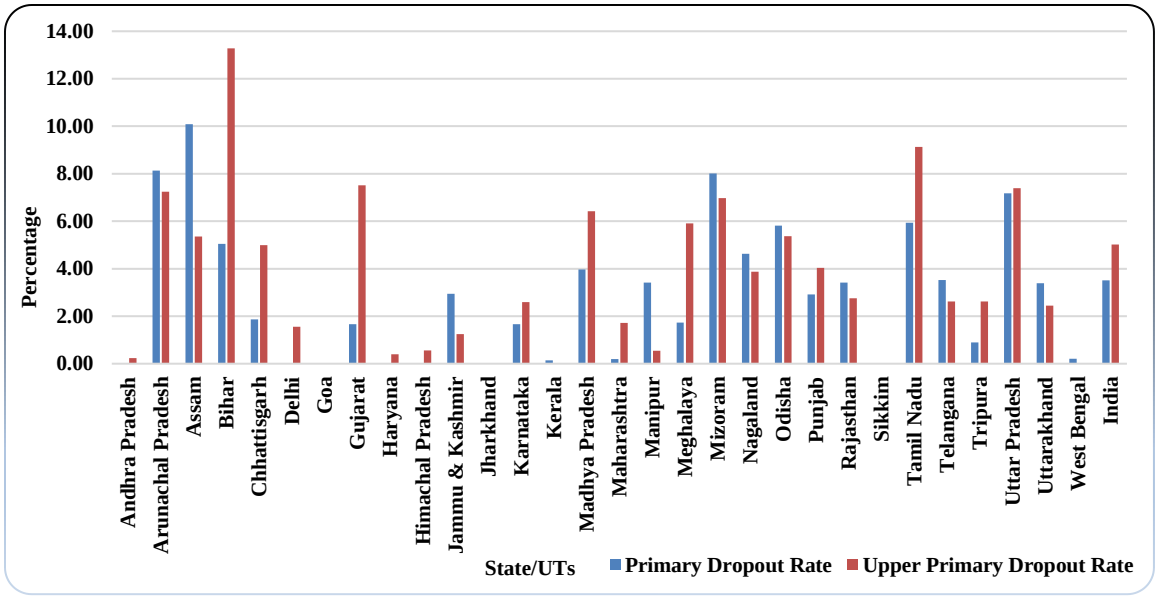
Figure 4.15 Dropout Rate by social Groups at Primary and Upper Primary Level



Source: Researcher's calculation from U-DISE data, 2016-17

Moreover like the overall dropout rate trend, the dropout rate among scheduled castes and scheduled tribes at primary and upper primary levels moves on in an increasing trend with around 10 percent of dropout in ST at the upper primary level. Over the years, the dropout rate has continuously increased for SC and ST at primary as well as Upper Primary level besides only ST dropout rate at primary level which decreased from 2012-13 8.54 percent from 9.01 percent in 2016-17.

Figure 4.16Average Dropout Rate at Primary and Upper Primary Level



Source: U-DISE data, 2017-18

Figure 4.16 shows the Average Dropout Rate at Primary and Upper Primary level of various state/UTs. As many as 6 states data is unavailable at the primary level whereas only 4 state's data is missing at the Upper Primary level. Assam and Manipur are the only states which have a big difference of 4.72% and 2.88% respectively between Primary and Upper Primary Level Dropout rate indicating high dropout at a primary level rather than Upper primary level. Whereas, states like Bihar, Gujarat, Meghalaya, Tamil Nadu, Chhattisgarh, Madhya Pradesh, Tripura, Maharashtra, Punjab, Karnataka, Himachal Pradesh, and Uttar Pradesh have higher Dropout rate at Upper Primary level as compared to Primary level indicating more Dropouts at Upper Primary level stating a matter of concern of prevailing dropouts at such an early stage of schooling.

Table 4.8: Categorization of States with Dropout Rate

	Primary Dropout Rate	Upper Primary Dropout Rate
States with Low Dropout Rate	Assam, Arunachal Pradesh, Mizoram, Uttar Pradesh, and Tamil Nadu	Jharkhand, Andhra Pradesh, Haryana, Manipur, and Himachal Pradesh
States with high Dropout Rate	Himachal Pradesh, Kerala, Maharashtra, West Bengal, and Tripura	Bihar, Tamil Nadu, Gujarat, Uttar Pradesh, and Arunachal Pradesh

Source: Researcher's calculation from U-DISE data, 2017-18

However, after analyzing figure 4.14, there is variation among states in average dropout rates. So, States can be categorized within the categories of the States with high and low dropout rates at primary and Upper Primary Level as shown above in Table 4.8.

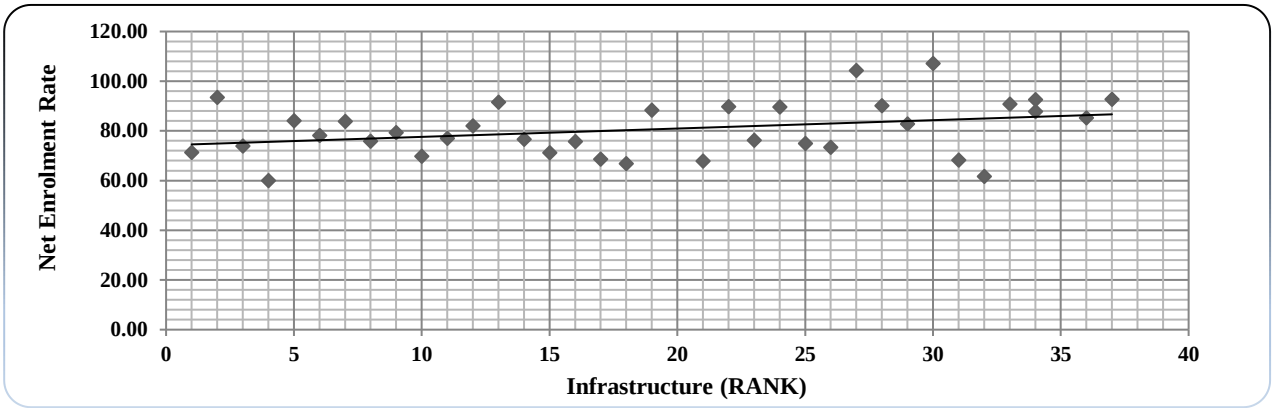
4.4. Correlation between Provision for Physical Infrastructure and Educational Attainment

To understand the association between levels of educational attainment and physical infrastructure provisions in primary and Upper Primary schools, a state-wise disaggregate analysis has been done. In this section, a correlation between the level of educational attainment and the infrastructural quality for each state has been studied. Since there is no single data available for the infrastructural facilities of the states and so Infrastructure quality Composite Index was created in order to determine the respective position of the states in terms of infrastructure as in the case of the level of educational attainment. The variables took for obtaining the composite index values were the availability of drinking water facilities, Girls' toilet, Electricity, Computer, and Ramp facility. With the average and the standard deviation, the Z score for each of the variables taken under the infrastructure composite index was calculated and thereby they were added to provide the composite index value for each state on the basis of which the states were ranked in terms of their performance. The higher the value of the composite index the higher was the rank of the state in terms of the infrastructure quality it had.

It can be deduced from Figure 4.8 that the rank of infrastructure and Net enrolment rate in the states are directly related, i.e. higher the rank of infrastructure, higher is the net enrolment rate in schools of the states. Hence, there is a weak positive relationship between the infrastructure quality of schools and net enrolment in them. In

almost all states, students prefer schools where infrastructure quality is good. Whereas, there is an exception in some of the northeastern states which perform well in participation (NER) even if they perform poorly in the provision of accessibility (Infrastructure).

Figure 4.17 Relation between Enrolment and Infrastructure



Source: Researcher's calculation from U-DISE data, 2017-18

The graph depicts the positive weak relation between the rank of the state in the infrastructure quality and the educational attainment of the state. What can be particularly noticed in some cases of states with better educational attainment is also there better infrastructural position. The relation between the two variables may be positive but is weak which only tells the fact that in the Indian education scenario it is not the only infrastructure that has an impending impact on the quality and access of education to children rather there are much bigger factors like the socio-economic conditions of the child that have an impact on the educational attainment. This graph opens up future avenues for research so to find out the factors that directly condition the educational attainment of the child.

CHAPTER V

SUMMARY AND CONCLUSION

Elementary Education is crucial and compulsory education stage of eight years enabling a solid foundation, followed by the Secondary Education stage which acts as a link towards the Higher Education System. Since this is the inception level to enter the system of education, it is considered to be of utmost value and importance. This level of education serves as the basic foundation for learning and also as a means of progressing to the Secondary level of education. Hence, lot of significance is attributed to Universalization of Elementary Education (UEE), which means that Elementary Education should be made accessible to all children belonging to the 6-14 age group and these children should complete eight years of elementary schooling, including five years of Primary Education (PE) and three years of Upper Primary Education (UPE). If we look back and review the progress of our country has made on various aspects of education, we find that substantial progress has been made since Independence but we still have not been able to achieve our targets to educate all children. Although efforts have been made to create necessary conditions to enable all children into the schooling system, still there is a lot to achieve. Some of the initiatives taken by the government to ensure universalization of elementary education in India include programs like the Operation BlackBoard, District Primary Education Programme (DPEP), and Sarva Shiksha Abhiyan (SSA), Right to Education (RTE)and Samagra Shiksha have been launched to improve access and coverage of elementary education in India.

However, Educational Opportunities in India are characterized by sharp disparities across various levels of education and various regions. The Disparities also continue at the school level in terms of access to differential educational facilities in different states/UTs. This study is an attempt to understand the situation of Access to Elementary Education and the Participation of students at this level, with a focus on Assessing regional Disparities in the Universalization of Elementary Education with a focus on accessibility and participation across different states, and rural and urban areas.

5.1 Summary of the Study

In the last several decades, Elementary Education has been characterized by differential growth in student participation as compared to the access provisions for this level in terms of institutions and teaching faculty. If the goal of UEE has to be pursued sincerely, it becomes imperative to study the Access provisions at this stage.

This study describes the state of Access and Participation at Elementary Education level with a focus on all states/UTs in India. There are as many as 11 states which have a literacy level below the national average as per census 2011. The gross enrolment ratio in India has been continuously falling on the increase in the level of education like Primary GER (94.21), Upper Primary GER (90.90), Secondary GER (79.38), and Higher Secondary (56.50). Similar is the case with Net Enrolment Ratio which keeps on decreasing at the national level as for primary (82.53), Upper primary (72.62), Secondary (52.14), and Higher Secondary (32.60).

This study was carried out to meet the following research objective:

- To undertake the diagnostic exercise for the status of Accessibility in different states of India at the Elementary level.
- To examine the Inter-state inequality in Participation at the Elementary level.
- To identify the existing regional disparities in the Universalization of Elementary Education with a focus on accessibility and participation across different States.

The study was based on a descriptive research design and used quantitative as well as qualitative data. Secondary data are collected, consolidated, and analyzed to fulfill the stated objectives. Secondary data in the form of elementary education Udise database, states, and central publications regarding elementary education were used. The secondary data were analyzed and developed into indicators of Access and Participation. Secondary data entry and analysis were majorly done in MS Excel.

5.2 Major Findings of the Study

The major findings of the study are elaborated under the following sub-headings:

5.2.1 Access to Elementary Education

1) The norms for access to primary and upper primary schools envisages a school within a distance of 1 km and 3km respectively from a habitation. India has covered almost all habitations in different states/UTs with primary schools. Status of habitations covered with primary Schools differs in different states/UTs. There are 9 states/UTs that have 100% coverage with primary Schools whereas there are many other states/UTs which still lag behind and still have to achieve 100% coverage. There are States/UTs which still have uncovered habitations of primary level of education like Manipur (14.58%), Andaman & Nicobar Islands (13.64%), Arunachal Pradesh (13.3%), Nagaland (12.88%), and Jammu & Kashmir (12.33%).
2) Habitations covered with Upper Primary Schools are much different then what is seen at the national level, there are as many as 8 states/UTs i.e. Chandigarh, Dadra & Nagar Haveli, Daman & Diu, Delhi, Goa, Lakshadweep, Puducherry, and Sikkim that have 100% coverage with Upper Primary Schools. Apart from that, Andaman & Nicobar Islands and Manipur have the lowest coverage as mere 39.14% and 43.19% respectively whereas other states/UTs are also lagging in achieving 100% coverage like Nagaland (70.91%), Arunachal Pradesh (79.46%) and Maharashtra (84.84%).
3) Overall, management wise distribution of elementary Schools is majorly dominated with Government School with a percentage share of 74% whereas the share of Private schools is 21% and Private Aided schools have a mere 5% share. The scenario of percentage share as seen at the national level doesn’t remain the same at the state level. Few states have a pretty high share of schools other than government schools. States/UTs like Kerala (46%), Goa (31%), Meghalaya (27%), and Tamil Nadu (15%) have a high share of Private Aided School.

Whereas, there are states/UTs like Delhi (47%), Puducherry (39%), Rajasthan (35%), Haryana (34%) and Sikkim (33%) which have relatively high percentage share of Private Unaided Schools.

4) Whereas, India in rural areas has 81% of Government schools, 15% of Private-Unaided Schools, and 4% of Private-Aided Schools. As shown in figure 3.5 states/UTs having high percentage share of Government schools like Lakshadweep (100%), Bihar (96%), Jharkhand (96%), Chandigarh (94%), and Tripura (93%) whereas several states have low percentage share of government schools like Kerala (31%), Meghalaya (60%), Puducherry (62%), Delhi (63%), and Goa (64%). Private-unaided schools in rural areas having a high percentage share in States/UTs like Delhi (36%), Puducherry (35%), Sikkim (29%), Uttar Pradesh (27%), and Rajasthan (26%) whereas various states have a low percentage share of private schools like Lakshadweep (0%), Jharkhand (2%), Bihar (4%), Odisha (4%), and Tripura (6%).
5) In the case of management wise distribution of school in urban areas, India has quite a different scenario as compared to overall distribution and distribution in rural areas. The percentage share of Private and Private Aided Schools has increased significantly starting a privatization culture much dominant in urban areas in all states/UTs. India has 37% Government Schools, 53% Private Schools, and 10% Private Aided Schools in Urban areas. As shown in figure 3.6 States/UTs like Lakshadweep (100%), West Bengal (78%), Tripura (74%), Jharkhand (72%), and Odisha (70%) are having high percentage share of Government Schools as compared to other states/UTs whereas states/UTs like Rajasthan (20%), Sikkim (21%), Uttar Pradesh (23%), Maharashtra (24%), and Uttarakhand (27%) have considerably low percentage share of Urban Government Schools. In terms of Private schools in urban areas, states/UTs like Rajasthan (80%), Sikkim (74%), Uttar Pradesh (71%), Haryana (66%), and Uttarakhand (65%) have high percentage share among others and there are states/UTs that have low percentage share of private schools in urban areas like Lakshadweep (0%), Tripura (18%), Jharkhand (19%), Goa (21%) and West Bengal (22%).

6) Almost 18.34 percent of the classrooms in India is still not in good condition. The percentage share since 2008 has shown a decreasing trend until 2011-12 to reach approximately 18 percent from 26 percent. Whereas, since 2011-12 it has remained to be in a constant way near to 18 percent till 2016-17, showing a clear sign of not much effort put into improving classroom condition over the past 6 years. There is also a huge difference between the condition of schools in urban and rural localities, wherein 22 percent of the rural schools as compared to less than 8 percent of urban schools are not in a desired or good condition for the year 2016-17.
7) To see variation between Urban and Rural areas, coefficient of variation (CV) was taken out which brought in clarity that India had 52 percent of CV whereas in the urban areas there was a higher level of variation as compared to rural areas. The CV was 77 percent for urban areas as compared to 47 percent in the rural areas. So, there are states which perform very well in terms of classrooms in good condition but there are other states as well which perform very poorly leading to a high degree of CV in urban areas as compared to rural areas.
8) From an SCR of 35 for the year 2007-08 to 25 in the year 2016-17 has shown a significant improvement over a decade. Whereas, in the management-wise scenario of Student classroom Ratio, Government-Aided schools have relatively high SCR as compared to Government schools and private unaided schools. Government schools have lowered SCR with a continuous trend since 2011-12 whereas, private schools have remained almost stagnant with the least variation among 6 years.
9) Most of the hilly states like Jammu & Kashmir, Himachal Pradesh, Punjab, Sikkim, Arunachal Pradesh, Nagaland, Manipur, Mizoram, and Meghalaya have favorable SCR. whereas states like Maharashtra and Bihar have relatively very high SCR. The huge variation among all northeastern states and few northern hilly states with the rest of Indian states leaves a gap to be filled.
10) There have been various indicators used in basic amenities like access to Primary and Upper Primary schools, Drinking water, Girl's toilet, Electricity, Computers, and Ramp facility. It is important to evaluate all states on their performance in

terms of the provision of the accessibility of different indicators. On analyzing data, different states can be categorized based on performance in various indicators. There are top-performing states as well as low performing states in different indicators.

11) Among top-performing states, Haryana, Tamil Nadu, Goa, Gujarat, and Punjab have topped in 4 indicators out of nine indicators in comparison to other states, followed by Odisha, Sikkim, and Mizoram as shown in figure 3.18.
12) Whereas, among bottom-performing states, Meghalaya has a been in the Bottom 5 category for maximum no. of times i.e. 7 out of nine indicators in comparison to other states, followed by Assam (5), Arunachal Pradesh (4), and Bihar (4), as shown in Table 3.19.
13) Northern zone states have been in Top 5 Category for maximum times i.e. 11 times in various indicators as compared to other Zone states. Whereas the western zone states have been 10 times, and southern Zone states have been 9 times in Top 5 Category in various Indicators. Central Zone States, Eastern Zone States, and the North-Eastern Zone States are having very little participation in the Top 5 Category.
14) Whereas southern zone states have been 8 times, and Northern Zone states have been 7 times in Top 5 Category in various Indicators. Central Zone States, North-Eastern Zone States, and the Eastern Zone States are having very little participation in the Top 5 Category.
15) Besides, Top-performing zones, some zones perform poorly in the provision of accessibility to different indicators that show a big variation among states or regional disparity existing in India. Table 3.7 shows the regional categorization of the bottom 5 states in different indicators, where it is evident that the North-Eastern zone states have come up 28 times as compared to states from any other zones. Eastern zone is another zone of which states have been 6 times ranked in the Bottom 5 category, being followed by western zone with 4 times, Northern & central zone thrice and Southern Zone only once showing participation, showing clear evidence of regional disparity existing in performance of states within different zones in India.

The provision of accessibility certainly leads to some motivation for the participation of children. Thus, Participation is another important parameter to assess the universalization of elementary education.

5.2.2 Participation at Elementary Level

1) Overall, India has 90.03 percent GER and the difference between Girl's GER (95.58%) and Boy's GER (90.78%) is 4.80 percent with Girl's GER more than Boy's GER. Delhi, Chandigarh, Bihar, and Meghalaya are view top states/UTs having more than 7% of the difference with Girl's GER more than Boy's GER indicating high girls participation and only states like A & N Islands and Andhra Pradesh having more Boy's GER than Girl's GER.
2) There are 8 states which have more than 90% NER indicating a high degree of participation in a state and principle, able to accommodate all of its official school-age population. There are as many as 16 states/UTs which lie in the range of 75 to 90% NER whereas 12 states/UTs have less than 75% NER.
3) Puducherry has the lowest NER in the country i.e. 59.91 percent whereas Tripura and Manipur have achieved 100 percent. Overall, India has 79 percent NER and the difference between Girl's NER (81.26%) and Boy's NER (76.99%) is 4.27 percent with Girl's NER more than Boy's NER.
4) Delhi, Chandigarh, Bihar, Daman & Diu, and Punjab are view top states/UTs having more than 7% of the difference with Girl's NER more than Boy's NER indicating high official age-group girls participation. Few states/UTs like Lakshadweep, Dadar & Nagar Haveli, A & N Islands, Andhra Pradesh, and Odisha have more Boy's NER than Girl's NER.
5) The percentage of girls' enrolment to total enrolment has increased from 2007-08 to 2017-18 in 8 states i.e. Arunachal Pradesh, Assam, Bihar, Goa, Jammu & Kashmir, Rajasthan, Tripura, and West Bengal out of which Bihar has witnessed the highest growth of 4% girls' enrolment to total enrolment as 46% in 2007-08 and 50% in 2017-18 of girls' enrolment to total enrolment. Haryana, Kerala, Manipur, Punjab, Sikkim, and Uttarakhand are the states showing a negative

growth whereas as many as 13 states show no growth at all in 2007-08 & 2017-18.

6) Arunachal Pradesh, Assam, Bihar, Meghalaya, and West Bengal are the only states showing 50 percent enrolment of girls as per the 2017-18 data. On average the percentage of Girls enrolment at elementary level has remained the same as in 2007-08 & 2017-18 as 48%. In 13 states, the percentage of girls' enrolment to total enrolment was higher than overall India's average in 2007-08 but the number of states increased and 14 states became marginally higher than the state average in the year 2017-18.
7) Bihar is the only state which has made a remarkable improvement over a decade from a GPI value of 0.85 for the year 2007-08 to a GPI value of 0.99 for the year 2017-18 with an increment of 0.14 being highest among all states. There are several states such as Sikkim, Uttarakhand, Haryana, Manipur, Meghalaya, Madhya Pradesh, Kerala, Karnataka, Punjab, Mizoram, Maharashtra, and Uttar Pradesh which have its declined GPI value for the year 2017-18 as compared to 2007-08.
8) There are only two states i.e. Assam (1.01), and Meghalaya (1.01) which have more than GPI value of 1, out of which Assam has progressed against the year 2007-08 which had a GPI value of 0.98 whereas Meghalaya came down to the GPI value of 1.01 in 2017-18 against the value of 1.03 in 2007-08. There are seven states/UTs such as Haryana (0.82), Punjab (0.84), Rajasthan (0.86), Gujarat (0.87), Delhi (0.88), Maharashtra (0.88), and Uttarakhand (0.89) which have a low GPI value of less than 0.90.
9) There are 5 states with the highest GPI values which are a part of the North-East or Eastern region of India whereas 5 states with least GPI values are part of the North/Western region of India.
10) Bihar and Gujarat are the few states which have a big difference of 8.05% and 5.77% respectively between Primary and Upper Primary Level Promotion rate indicating a rise in repeaters and dropouts at the upper primary level.
11) States like Manipur and Assam have higher promotion rates at Upper Primary level as compared to the Primary level indicating more repeaters and dropouts at a

primary level only stating a matter of concern of being repeaters or dropouts at such an early stage of schooling.

12) Manipur is the only state which has a big difference of 2.17% between Primary and Upper Primary Level Repetition rate indicating a majority repeaters at a primary level rather than Upper primary level.
13) States like Meghalaya, Goa, Uttar Pradesh, Assam, Delhi, Jammu & Kashmir, and Tamil Nadu have higher Repetition rate at Upper Primary level as compared to Primary level indicating more repeaters at Upper Primary level only stating a matter of concern of being repeaters at such an early stage of schooling. Rajasthan is the only state which has zero Repetition Rate at both Levels i.e. Primary and Upper Primary. However, Uttarakhand is the only state which has the same average repetition rate at the primary level as well as at the upper primary level.
14) The dropout rate has decreased from 2012-13 at the primary level till 2015-16 and it increased again in the year 2016-17. Whereas the dropout rate has been on a continuous rise since 2012 at the upper primary level as well. This is a matter of concern that why the dropout rate has been rising in these years.
15) The dropout rate at the primary level shows moreover stagnant over 5 years from 2012 to 2017. But at the upper primary level, the trend shows a continuous increase in dropout percentage among both girls as well as boys. Moreover in 2012 dropout rate at the upper primary level had been lesser than the primary level but the dropout rate at primary as well as the upper primary level has reached almost the same percentage share in the year 2016-17 among both boys and girls.
16) Moreover like the overall dropout rate trend, the dropout rate among scheduled castes and scheduled tribes at primary and upper primary levels moves on in an increasing trend with around 10 percent of dropout in ST at the upper primary level. Over the years, the dropout rate has continuously increased for SC and ST at primary as well as Upper Primary level besides only ST dropout rate at primary level which decreased from 2012-13 8.54 percent from 9.01 percent in 2016-17.
17) Assam and Manipur are the only states which have a big difference of 4.72% and 2.88% respectively between Primary and Upper Primary Level Dropout rate

indicating high dropout at a primary level rather than Upper primary level. Whereas, states like Bihar, Gujarat, Meghalaya, Tamil Nadu, Chhattisgarh, Madhya Pradesh, Tripura, Maharashtra, Punjab, Karnataka, Himachal Pradesh, and Uttar Pradesh have higher Dropout rate at Upper Primary level as compared to Primary level indicating more Dropouts at Upper Primary level stating a matter of concern of prevailing dropouts at such an early stage of schooling.

18) The rank of infrastructure and Net enrolment rate in the states are directly related, i.e. higher the rank of infrastructure, higher is the net enrolment rate in schools of the states. Hence, there is a weak positive relationship between the infrastructure quality of schools and net enrolment in them. In almost all states, students prefer schools where infrastructure quality is good. Whereas, there is an exception in some of the northeastern states which perform well in participation (NER) even if they perform poorly in the provision of accessibility (Infrastructure).

5.3 Discussion and Conclusion

Five important things that have come out of this study are as follows:

1) Haryana, Tamil Nadu, Goa, Gujarat, and Punjab has the highest accessibility performance, whereas Meghalaya has the worst accessibility performance at seven indicators i.e. access to Primary & Upper Primary schools, Classroom not in good Condition, Student Classroom Ratio, Drinking water, Girl's toilet, Electricity, Computers, and Ramp facility.
2) The northeastern States i.e. Meghalaya, Assam, Arunachal Pradesh, Tripura, and Nagaland have the least accessibility to various indicators such as access to Primary and Upper Primary schools, Classroom not in good condition, Student Classroom Ratio, Drinking water, Girl's toilet, Electricity, Computers, and Ramp facility.
3) Access to Private-aided Schools is pretty high in Southern and North-Eastern State as compared to other regions of the country.
4) Even of poor accessibility to Primary & Upper Primary schools, Classroom not in good condition, Student Classroom Ratio, Drinking water, Girl's toilet,

Electricity, Computers, and Ramp facility in the North-Eastern States, they perform well in terms of Participation on indicators such as GER, NER, and GPI.

5) There is a weak positive relationship between the Infrastructure quality of schools and net enrolment in them. In almost all states, students prefer schools where infrastructure quality is good. Whereas, there is an exception in some of the northeastern states which perform well in participation (NER) even if they perform poorly in the provision of accessibility (Infrastructure).

There are much bigger factors like the socio-economic conditions of the child that have an impact on educational attainment. This exercise opens up future avenues for research so to find out the factors that directly condition the educational attainment of the child besides quality infrastructure.

5.4 Policy Implications of the study

There have been several schemes that fall in consonance with the policy of the Universalization of Elementary Education. Whereas, as per Right to Education (2009), the Government of India has made the elementary level of Education free and compulsory to all children of the age of 6-14 years. Schemes like Sarva Shiksha Abhiyan and Samagra Shiksha have an approach and framework which impressively capture the essence for achieving the Universalization of Elementary Education. However, schemes are effective only when they are implemented according to the prescribed framework. This Study provides numerous pointers towards the lag in the proper implementation of the SSA scheme. In some cases, the structures are not in the place whereas, in others, the structures do not function effectively. The policy of UEE has been planned but the implementation of this policy is not being carried out in a planned way across states leading to inter-state inequality and regional disparities among various standard parameters setup under free and compulsory of quality Elementary Education in RTE (2009). Some measures for proper implementation of the scheme must be taken so that SSA and Samagra Shiksha are a success and UEE becomes a reality.

5.5 Recommendations for Further Research

SSA and Samagra Shiksha are schemes that were launched to enable Universalization of Elementary Education and as such, are very recent ones. This study was conducted in 2019-20 and has identified the major issues in Access and Participation at the Elementary stage. It has also identified some major lags in the planning process. Further studies can be undertaken regarding Access and Participation maybe two or three years from now, to capture the changes in planning, access provisions, or the trends in participation at elementary level within the Samagra and its relative changes after being exercised and adopted by all states in the country. Longitudinal studies presenting a comparative picture of the Elementary Education pre and post-Samagra Shiksha can be undertaken.

In this study, data analysis revealed some findings that warrant further investigation and inquiry. For Instance, why is North-Eastern Region states lagging in access provisions to Elementary Education and Promotion Rates, as compared to other regions of the country? Similarly, why are the Access to Private-aided Schools are pretty high in Southern and North-Eastern State as compared to other regions of the country? This study suggests that there is a weak positive relationship between the Infrastructure quality of schools and net enrolment in them. In almost all states, students prefer schools where infrastructure quality is good. Whereas, why there are some northeastern states which perform well in participation (NER) even if they perform poorly in the provision of accessibility (Infrastructure)? Even of poor accessibility to Primary & Upper Primary schools, Drinking water, Girl's toilets, Electricity, Computers, and Ramp facilities in the North-Eastern States, they perform well in terms of Participation parameters such as GER, NER, and GPI. What are the socio-economic reasons that have an impact on educational attainment? This research opens up future avenues to find out the factors that directly condition the educational attainment of the child besides quality infrastructure. All these questions need to be addressed through more of deep research so that planning in respective states and remedial measures to address the issues of Inequality in school education and regional disparity among Accessibility and Participation can be undertaken accordingly.

Bibliography

Asadullah, M.N., Chaudhury, N., (2015). The dissonance between schooling and learning: evidence from rural Bangladesh. Comp. Educ. Rev. 59 (3), 447–472.

Aslam, M., (2009). The relative effectiveness of government and private schools in Pakistan: are girls worse off? Educ. Econ. 17 (3), 329–354.

Azam, M., Kingdon, G.G., (2013). Are girls the fairer sex in India? Revisiting intra household allocation of education expenditure. World Dev. 42, 143–164.

Beckley, H. (2002). Capability as opportunity: How Amartya Sen revises equal opportunity. *Journal of Religious Ethics*, 30(1), 107-135

Borooah, V.K., (2012). Social identity and educational attainment: the role of caste and religion in explaining differences between children in India. J. Dev. Stud. 48 (7), 887–903.

Brighouse, H. (2006). *On education*. Routledge

D'Souza E. (2004) *Markets and Equity in Education*, Economic and Political Weekly, Vol. 39, No. 11, pp. 1107-1110

Glenn K (1991) *MENC Horizons: Equity in Education*, Music Educators Journal, Vol. 78, No. 2, pp. 4+6

Graham P. A. & Van F. D. (1979) *Equity in Education*, Change, Vol. 11, No. 2, p. 4

Juneja, Nalini (2003) Constitutional Amendment to Make Education a Fundamental Right: Issues for a Follow-up Legislation. New Delhi: NIEPA

Khader, S.A (1998): Productivity in Infrastructure, *Yojna*, January, pp 13-18.

Kingdon, G.G., (2002). The gender gap in educational attainment in India: how much can be explained? J. Dev. Stud. 39 (2), 25–53.

Levin B. (2012) *Greater Equity in Education*, The Phi Delta Kappan, Vol. 93, No. 7, pp. 74-75

Maitra, P., Pal, S., Sharma, A., (2011). Reforms, Growth and Persistence of Gender Gap: Recent Evidence from Private School Enrollment in India. Institute for the Study of Labor (IZA) Discussion Paper No. 6135.

Martin B. & Hearne J. D. (1989) *Computer Equity in Education*, Educational Technology, Vol. 29, No. 9, pp. 47-51

Mehta, A. C. (2007) Elementary Education in India Progress Towards UEE: Analytica Report 2005-06. New Delhi: NIEPA.

Mehta, A.C. (2006) Elementary Education in India Progress towards UEE: Analytical Report 2004-05. New Delhi: NIEPA.

Ministry of Human Resource and Development (2019) Some Inputs on Samagra Shiksha as Draft Framework for implementation of the Samagra Shiksha - an Integrated Scheme for School Education, Retrieved from,
http://samagra.mhrd.gov.in/docs/Framework_IISE%20_F.pdf

Ministry of Human Resource and Development. (2019). Some Inputs on National Education Policy. Retrieved from,

https://mhrd.gov.in/sites/upload_files/mhrd/files/nep/Inputs_Draft_NEP_2016.pdf

Naik, J. P. (1975) Elementary Education in India: A Promise to Keep. New Delhi: Allied Publishers.

Ramachandran, V. & Saihjee, A. (2002) The New Segregation: Reflections on Gender and Equity in Primary Education. Economic and Political Weekly, April 27 May 3, 37(17) pp. 1600-1613.

Rawls, J. (2009). *A theory of justice*. Harvard university press.

Rose, P., Alcott, B., (2015). How can education systems become equitable by 2030? DFID think pieces – Learning and equity. Report Prepared for UK Department for International Development. Health & Education Advice and Resource Team, Oxford, UK.

Sen, A, & Parodi, M. (2007). Merite et justice. *Reve de l'OFCE,* (3), 467-481.

Shelby, T. (2014). Integration, Inequality, and Imperatives of Justice: A Review Essay. *Philosophy & Public Affairs*, 42(3), 253-285

Singh, K (2014) Right to Education and Equality of Educational Opportunities. CICE Hiroshima University, Journal of International Cooperation in Education, Vol.16 No.2 (2014) pp.5-19

Srivastava, P., (2006). Private schooling and mental models about girls' schooling in India. Compare 36 (4), 497–514.

Taylor C., Fitz J. & Gorard S. (2005) *Diversity, Specialisation and Equity in Education*, Education and the Labour Government: An Evaluation of Two Terms, Vol. 31, No. 1, pp. 47-69

Tilak, B. G. (1979) *Inequality in Education in India*, *Indian*, Journal of Industrial Relations, Vol. 14, No. 3, pp. 417-436

UNESCO, (2014). Global Monitoring Report 2013/4: Teaching and Learning: Achieving Qualityfor All. UNESCO, Paris.

Yash Aggarwal, Senior Fellow and Head, Operations Research and Systems Management Unit, NIEPA, New Delhi (October 2001).

https://www.education.ie/en/Publications/Policy-Reports/Report-of-the-Action-Group-on-Access-to-Third-Level-Education.pdf

http://www.yourarticlelibrary.com/education/11-salient-features-of-national-policy-on-education-1986/76821

https://www.researchgate.net/publication/337741316_Indian_Education_System_and_Current_Status_of_Education_in_India_Sustainable_Development_Goal_4_Quality_Education

https://cgg.gov.in/core/uploads/2017/07/Strategy-for-Girl-Child-Education.pdf

https://www.unicef.org/mena/media/2126/file

https://www.worldbank.org/en/country/india/brief/educating-india-children

https://www.researchgate.net/publication/323691483_Socio_Economic_Development_and_Empowerment_of_Disadvantaged_Groups

http://www.iiep.unesco.org/sites/default/files/strenghtenning_of_education_systems_-_discussion_paper.pdf