

Educational Progress in Sikkim within the North Eastern Landscape

Suman Negi¹

Abstract

India's North Eastern Region expresses parallels in aspects related to its physical, social, cultural, political and economic fabric. But when we look at the development trajectory each state stands out self-reliantly telling its own story. This paper in the backdrop of these trajectories explores the educational development in the state of Sikkim in context to its seven sisters. Sikkim the newest member to region has witnessed a fast-paced growth in a relative short span of time. Education in the region stands out when compared to many states that began at the same time but has a long way to go to achieve its desired targets. Focusing on school education, an attempt has been made to study the attributes related to the key performance indicators of education to understand the progress made and further identify the challenges in the last few decades of planned development.

Background

Education, especially in developing countries is placed at the center of all social and economic development strategies. As a measure they have invested in strengthening the overall ability of their education systems. India too has followed suit and has initiated many targeted educational developmental programmes in the last few decades with the aim to maximize the number of children entering the schooling system and also completing the same. Such strategies have contributed to the overall development and India has performed well as reflected in the educational development indicators across all levels of education and across the different regions of India. Although in the pursuit of development the pace has not been the same across the different regions of India and in this entire development trajectory the North Eastern Region of India holds a special place, not only for its geographical and physical location but also for the social, economic, political and cultural variations.

¹ Assistant Professor, Department of Educational Planning, National Institute for Educational Planning and Administration (NIEPA) Email:suman@niepa.ac.in

The Paper in this context is an attempt to understand the educational development indicators in the North Eastern States, with a special focus on the state of Sikkim. This is being done with the target to see how far the region stands from achieving universalization of school education within the North East and identify some emerging issues and developmental challenges specific to this region.

The provision of schooling facilities in the region has also increased manifold and this can be attributed to the constitutional commitment of the State to provide free and compulsory education to all upto the age of 14. The Government of India has in place several schemes specially targeted for the region, but it must be noted that some of these schemes were introduced in the North East Region as late as in 2000-01. Except Assam where the District Primary Education Project (DPEP) was launched in the 1990s in 9 selected districts, no special efforts, in the form of projects or programmes, were made in the region for achieving Universal Elementary Education (UEE) despite the fact that the region was far flung, mountainous and backward. The Sarva Shikha Abhiyaan (SSA) was the first serious effort made in the country to achieve the goal of UEE, which also covered the North Eastern Region (Zaidi, 2006).

Sikkim, located in the North Eastern part of India is one of the smallest states of India, but apart from its territory being undersized its location is strategically significant, as it shares most of its borders with other countries viz. Nepal, China and Bhutan. West Bengal is the only Indian state with which it shares its boundary. Sikkim with its chequered history encompassing a kingdom ruled by generations of Chogyals (Kings), existed as a British protectorate and then as an Indian protectorate from (1950-1974) that culminated in its merge as the 22nd State of the Republic of India in 1975 (Bhutia, 2005).

Sikkim in the North East Context

Sikkim was not born out of India and it was not a part of the contiguous seven northeastern states of Arunachal Pradesh, Assam, Meghalaya, Manipur, Mizoram, Nagaland and Tripura which is commonly referred to as the seven sisters. Sikkim was included as a part of the North East Council (NEC) in 2002, under the Department of Development of North-East Region (DONER). Therefore, very often it is referred to as the brother to the seven sisters of the North Eastern States.

India's North East Region comprising of eight states covers 7.98 percent of India's territory and collectively represents 3.76 percent of the country's population of over 45.77 million. Within North Eastern Region, the state of Sikkim is the smallest in terms of population as well as area, but the performance of the state on various social and economic indicators when compared with the other states of the North East Region shows better performance.

The state has four administrative districts named according to their regional location which include the North District, West District, South District and East District. Sikkim comprises of only 0.05 percent of India's total share with 6,10,577 persons according to the 2011 Census and represents a rather lower sex ratio at 890 females per 1000 males. The population during the decade (2001-2011) registered a relatively lower growth rate of 12.89 percent as compared to 33 percent between the decades 1991-2001. The proportion of those living in urban area has more than doubled with 25 percent of the population living in urban areas as compared to 75 percent in rural. 47 percent of the population resides in the East districts which is also most urbanized, as compared to the North district where 7 percent of the population lives and the density is 10 persons per sq.km.

Historical Overview of Education in Sikkim

There is limited historical evidence of the existence of any formal educational system in Sikkim, although, the existence of monastic educational system primarily to train monks traditionally existed. This was the only education that prevailed for 250 years until the British came in. It was in 1830's that formal modern education took its shape under the British rule and a missionary school was established at Gangtok in 1833. This was followed by the establishment of two more schools in 1906 that were later combined in 1924 and renamed after the then Monarch as Tashi Namgyal Higher Secondary School, and the school exists even today as a Government Aided School. (Bhattacharya, 1986).

Looking into the administrative set-up of education in the state it was in 1920 that the King of Sikkim reorganized the Education Department and placed it under the administration of a full-fledged Director of Education who was assisted by a 'Board' under the headship of a president. In 1922, the Education Department was placed under the Judicial Secretary (Mahajam 1995). In 1945 the first Inspectors of Schools was appointed in Sikkim. In 1950, an officer was given the charge of the Education Department, and in 1953 the first Executive Councilor of the department was appointed. In 1954, the first Director from outside the Kingdom was appointed and he was assisted by three Inspectors of Schools. One such inspector was posted at the headquarters and the others in the districts. In the early sixties, at the directorate level the administration set up comprised of the Director of Education, an Inspector of Schools in charge of planning and administration, an Office Superintendent and about a dozen clerical staff. In 1975 when Sikkim became the twenty-second state of the Indian Union, efforts were made to further strengthen the educational administrative set-up and certain new posts which include the posts of Joint Director (Planning), Joint Director (Administration), Joint Director (Academic) and four Joint Directors one for each district were created (Mahajan 2005). According to the Sikkim government gazette (2005), it was in May, 2004 that the state Government of Sikkim notified the existing Education Department as Human Resource Development Department (HRDD). The HRDD exists as a separate Department and is headed by a Minister and has the normal

administrative set up as any other state, with Joint-Directors in the four Districts heading the education at the district level.

Literacy Trends and Status

One of the basic indicators of progress in education is the literacy rate. These rates have a direct bearing on the educational opportunities available to the population. The literacy rates in the North Eastern states have been rather impressive as all the states apart from Arunachal and Assam (marginally) have literacy rates higher than the national average. The five states of Mizoram, Tripura, Sikkim, Nagaland and Manipur respectively figure amongst the top ten states with highest literacy. Also, the pace of growth in literacy has been higher in most states than the national level compared with the national average. Mizoram represented the highest literacy rates while Arunachal Pradesh the lowest. Sikkim within the North Eastern states represented the third highest literacy rate after the states of Mizoram and Tripura. The gender gap in the state also narrowed from 15.6 percent to 10.9 between 2001 and 2011.

Table 1: Literacy Rates in North Eastern States

States	1961	1971	1981	1991	2001	2011
Arunachal Pradesh	7.13	11.29	25.55	41.59	54.34	66.95
Assam	32.95	33.94	–	52.89	63.25	73.18
Manipur	36.04	38.47	49.66	59.89	70.53	79.85
Meghalaya	26.92	29.49	42.05	49.1	62.56	75.48
Mizoram	44.01	53.8	59.88	82.26	88.80	91.58
Nagaland	21.95	33.78	50.28	61.65	66.59	80.11
Tripura	20.24	30.98	50.1	60.44	73.19	87.75
Sikkim	–	17.74	34.05	56.94	68.81	82.20
INDIA	28.3	34.45	43.57	52.21	64.84	74.04

Source: Census of India, various years.

Education Sector Diagnosis

One of the fundamental mandates of educational planning is an exhaustive assessment of the current educational situation of a given administrative unit. This assessment is often referred to as the Education Sector Diagnosis (ESD) that forms the basis for the formulations of developmental programs and policies. An Education Sector Diagnosis is a critical examination of the status, functioning and results of the education system, designed to identify its strengths, weaknesses and opportunities for improvement (UNESCO, 2010). It is the diagnosis of the educational indicators that helps to analyse the performance and identify the gap between target and achievement. It is on the basis of these indicators that further prioritization is done and further targets are set so as to rationalize input costs.

In an Education Sector Diagnosis the state of the education system is evaluated from eight main perspectives of Context, Quality, Access, Internal Efficiency External Efficiency, Costs and Financing, Equity and Management. The present paper focuses on some of these perspectives and the Key Performance Indicators under the government flagship programme of Samagra Shiksha, has been taken to have an in-depth review of the different sectors and sub sectors.

a. Demographic Setting

The requirements and demand for education is a direct outcome of the size of the relevant school aged population and therefore it becomes necessary to examine the demographic distribution of the school going population to be prepared for any future situation. Such an analysis provides the number of children to be enrolled at each level, which is the starting point for assessing requirements in terms of resources, including teaching staff, pedagogical material, textbooks, and classrooms (UNESCO 2014).

The table below represents the age wise distribution of the population in the North Eastern States from the 2011 Census. The distribution of the population into different age groups shows that Meghalaya has 16.4 percent of its population below 5 years of age as compared to only 8.7 percent in Sikkim. The average for India was 11.5 percent and the NER was 12.3 percent. Meghalaya also has the highest proportion (30 percent) of population in the school going age group (6-17 years) whereas Assam has the lowest (17.7 percent) and Sikkim had about 25 percent of its population in this age group. It must be noted that more than half the population in all the states except Assam was below 25 years of age. The median age calculated for the population for these states represents that Meghalaya is the youngest state with the median age at 19 years as compared to Assam being the oldest state with a median age of 31 years. The median age for both the national level and Sikkim were 25 years.

Table 2: Age wise Distribution of Population -2011

Age	All ages	Below 5 Years	6-17 Years	18-25 Years	Below 25 Years	26-60 Years	Above 60 Years	Median Age
Arunachal	1383727	12.8	29.8	16.2	58.8	37.4	3.7	21
Assam	31205576	10.3	28.4	15.8	54.5	40.0	5.4	23
Manipur	2855794	9.0	27.2	16.2	52.4	41.4	6.0	24
Meghalaya	2966889	16.4	30.1	15.8	62.4	33.4	4.1	19
Mizoram	1097206	13.2	25.3	16.3	54.7	39.5	5.6	23
Nagaland	1978502	12.3	29.2	16.9	58.4	37.0	4.5	21
Tripura	3673917	10.7	22.8	16.5	50.0	43.1	6.9	26
Sikkim	610577	8.7	25.0	17.8	51.5	42.3	6.0	25
NER	45772188	12.3	25.8	16.3	54.4	39.8	5.7	23
India	1210854977	11.5	25.2	15.5	52.2	40.3	7.1	25

Source: Calculated form Census 2011.

From the data and information, it is evident that a large portion of our population is in the school going age group or below the school going age group, therefore the need to plan for educational requirements becomes important. The policy and planning needs to focus on developing strategic interventions keeping in view the demographic features.

School Age Population in Sikkim: The growth rate of population of Sikkim has seen a considerable decline over the decades. The overall decline in growth is also reflected clearly in the population in the school going age groups of 6-17 years that comprised of 29.7 percent of the state's total population in 2001, but the share of the same group declined to 25 percent in 2011. Within this age group the share of males was higher for both the periods as compared to females at 31.5 percent in 2001 and 26.2 percent in 2011.

The age group wise distribution was further desegregated into relevant age groups for the four different levels of schooling. The share of those between the age groups 6-10 years who belong to the primary level of schooling comprised of 9.77 percent of the population in 2011 as compared to 11.81 percent share in 2001. The share of those at the Upper Primary level in age group 11-13 years too was higher in 2001 (7.7 percent) as compared to 2011 (6.5 percent), likewise the share of those at the Secondary level (14-15 years) and Higher Secondary level (16-17 years) also declined in 2011 at 4 percent for both the levels. Therefore, the share of the population in the relevant school age groups have declined over the years indicating that the overall demand or requirement for education in terms of school size could also decline.

Projected Population in the School Age Population: Any planning exercise without the availability of requisite data can become a futile exercise. Without accurate data it poses as a big challenge to identify existing issues and further set required targets and availability of school statistics in India has made great progress in the last three decades. Annual school census is conducted by the government regularly on various aspects of school related information across all levels of schooling. Although this data is regularly uploaded on government websites, challenges do exist as data on many attributes are not shared with the public.

However demographic data poses a big challenge as it is collected once only in ten years at the household level through Census. As the Census 2021 is yet to be launched, therefore, age specific data required for planning has been done using population projections for the purpose.

Population projections can be done using multiple methodologies to support the planning processes. Keeping this in view the Government of India constituted a Technical Group on Population Projections to look into the population projections in 2019. The Committee's Report was released in July, 2020. The expert committee group made projections for all the states and union territories of India based on the previous census years.. The projections were made for every 5 years from 2012 upto

2036, and the data has been used in the present analysis too..These projections were made on the basis of the population size of the states. Since the state-wise population for each state in the northeastern region is relatively small, the Technical Group combined the population together for the seven states in the region excluding Assam. The combined population was projected using the Cohort Component Method, after which the percentage share of population in each state based on the Census 2011 share was applied to this projected population to get the value for each state from 2012 up to 2036

b. Current Status of School Education

School education in India has witness tremendous progress as far as access and participation are concerned, but the moot question that remaionsis how long it would take to achieve the targets set for universalization of Education and issues pertaining to quality and desired outcomes...This section of the paper looks into the current status of Education in Sikkim in context of its neighbouring states of the North Eastern Region. An attempt is also made to understand the the temporal trends for Sikkim pertaining to selected educational indicators. The indicators analysed are: Access to school education, status of basic Infrastructure and Teaching-Learning Facilities, Educational Participation, Availability of Teacher and Educational Performance. These indicators have been examined using the U-DISE/ UDISE + data.

Access to School Education: Access to basic schooling facilities is mandated by law to all citizens in the school going age group. Provisioning of these facilities with basic minimum standards is the responsibility of the State. It is well documented that school education has seen its fastest growth in the last few decades, systematic programme interventions by the government have boosted access to schooling across the country.

Table 3 gives the population served by each school across all levels of schooling in the North Eastern Region. The average population being served by each school in the NER was 530 persons in 2021-22, that increased from 426 persons in 2016-17, although it must be noted that this average is much lower than the national average of 914 persons. Within the North-eastern states, Meghalaya indicated better levels of accessibility, wherein one school was available for 221 persons as compared to 826 persons in case of Tripura. Overall, the population served by each school in the NER showed an increasing trend between 2016-17 and 2021-22, these trends were also better than the national averages.

To examine the physical accessibility in terms of school distributions, the area served per school in square kilometers was taken for these states. This becomes pertinent especially for the region as it is mainly mountainous and the connotation of distance changes in a hilly terrain. On this parameter, the national average was slightly better at one school available for every 2.2 square kilometers, compared to one school for every 2.72 square kilometers for the North East Region. Among the states, Arunachal

Pradesh had the largest area of 23.24 square kilometers being served by each school, whereas Assam and Meghalaya have smaller area coverage per school (1.29 square kilometers and 1.53 square kilometers respectively), this could mainly be attributed to the topography in these states which is mostly plain.

Table 3: Access to Education in the North Eastern States

States	Population (2021 Project)	Total Schools 2021	Population Served by each School	Area in Sq. Kms.	Area Served by each School (Sq. Kms)
Arunachal Pradesh	1533000	3603	425	83,743	23.24
Assam	35043000	60859	576	78,438	1.29
Manipur	3165000	4617	686	22,429	4.86
Meghalaya	3228000	14600	221	22,327	1.53
Mizoram	1216000	3911	311	21,081	5.39
Nagaland	2192000	2718	806	16,579	6.10
Sikkim	677000	1259	538	7,096	5.64
Tripura	4071000	4929	826	10,486	2.13
NER	51125000	96496	530	262,179	2.72
All India	1361343000	1489115	914	3287240	2.21

Source: UDISE+, December 2022; Census of India, 2011

Table 4: Total Schools and Distribution of Schools by Level

India/ State/UT	Total Schools	Primary	Upper Primary	Elementary	Secondary	Higher Secondary
India	1489115	51.07	29.27	80.34	10.10	9.56
Arunachal Pradesh	3603	51.26	35.33	86.59	8.85	4.55
Assam	60859	66.52	17.54	84.06	11.98	3.97
Manipur	4617	52.46	20.92	73.38	20.75	5.87
Meghalaya	14600	63.17	24.17	87.34	10.01	2.64
Mizoram	3911	37.87	38.84	76.71	18.05	5.24
Nagaland	2718	42.57	28.96	71.53	21.19	7.28
Sikkim	1259	54.41	24.38	78.79	11.91	9.29
Tripura	4929	51.17	24.87	76.04	14.24	9.72

Source: UDISE + 2021-22.

Distribution of Schools by level of Education: The availability of schools has largely increased across all the north eastern states. The following tables highlight the current status in availability of schools across the four levels of schooling, between grades I to XII in the north eastern states. The proportion of Primary Schools was highest in the state of Assam at 66.52 percent followed by Meghalaya (63.5 percent). Mizoram on the other hand had the least share of primary sections (37 percent) followed by Nagaland (42.57 percent). Taking the elementary level of schooling for the region

except Manipur and Nagaland all the other six states in the region had more than 75 percent of the schools upto the Elementary level. The availability of Secondary and Higher Secondary schools across all the states were lower as compared to Elementary schools. The states of Nagaland (20.75 percent) and Manipur (21.19 percent) had the highest share of secondary schools percent. Arunachal Pradesh and Meghalaya had the lowest share of Higher Secondary Schools. The sates of Nagaland, Mizoram and Manipur had a higher proportion of secondary schools. Tripura (7 percent) and Sikkim (6 percent) have the highest proportion of composite schools as compared to a 2.7 percent national average.

Distribution of Schools by Management of Education: The share of private schools is growing across the country; the North Eastern region also has seen a steady increase. The distribution of schools in terms of their management represented a varying trend at elementary and secondary levels of schooling. At the elementary level a higher proportion of schools were managed by the government and at the Secondary level a higher proportion of schools were under private management across all the states. The distribution of schools by management at the elementary level shows that, Nagaland and Arunachal Pradesh had higher share of Government Schools at the elementary level whereas, states of Sikkim and Mizoram had a higher share of private schools. At the secondary level Nagaland and Manipur had more than 50 percent of the school under private management and Sikkim and Tripura had a higher share of schools under Government management.

Table 5: Total Schools and Distribution of Schools by Management

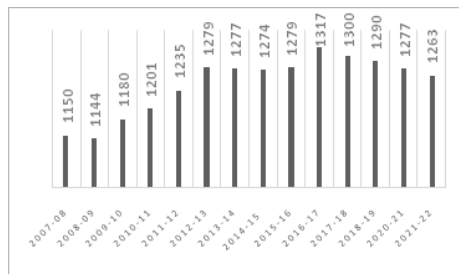
States	Total Elementary Schools	Govt. Schools (%)	Private (%)	Total Secondary Schools	Govt. Schools (%)	Private (%)
Arunachal Pradesh	3120	85.03	12.4	483	68.74	24.2
Assam	51154	79.71	5.1	9705	48.57	33.5
Manipur	3388	71.46	10.0	1229	38.08	54.6
Meghalaya	12752	59.96	10.5	1848	7.41	42.2
Mizoram	3000	73.93	22.2	911	37.87	40.4
Nagaland	1944	84.83	15.1	774	40.18	59.8
Sikkim	992	65.12	34.1	267	81.65	14.2
Tripura	3748	86.79	6.2	1181	85.44	11.2
India	1196265	75.65	17.5	292850	40.10	43.3

Source: UDISE + 2021-22.

Trends in Availability of Schooling Facilities in Sikkim: In the backdrop of foregoing discussion an attempt is made to understand the temporal trends in availability of schools with reference to Sikkim. Trends in availability of schools for the last decade, using the DISE, U-DISE and UDISE + data according to its availability, as given in

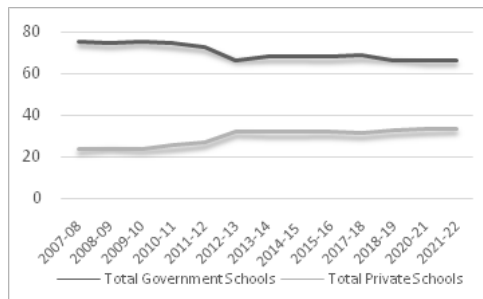
Figure 1 clearly represents that the number of schools rose from 1150 to 1317 schools in 2016-17. Post this period there has been a steady decline, with 1263 schools available in 2021-22. This mainly could be attributed to school mergers and closures due to shift in policy. One important fact that can be observed with the changing pattern in schools by management in Sikkim is the steady shrinking size of government managed schools and a steady increasing share of privately managed schools. The share of Government and Private schools was at 75: 25 in 2007-08 and in a span of less than 15 years the proportional share changed to 66:33. The government needs to take cognizance of the on the same, as there is also a shift in enrollments from government to private schools impacting state expenditures on education.

Fig. 1: Availability of Schools in Sikkim



Source: DISE, U-DISE, UDISE (Different years: 2007-08 – 2021-22)

Fig. 2: Distribution of Schools in Sikkim



Source: DISE, U-DISE, UDISE (Different years: 2007-08 – 2021-22)

Current Status of Basic Infrastructure and Teaching-Learning Facilities

The availability of infrastructure facilities in schools plays a very important role in determining the participation and further the performance of students in an education system. As the availability of these physical facilities supports the entire process of teaching and learning and students are better equipped and more comfortable. Most of the basic facilities like drinking water, toilets, toilets for girls etc. have been provided in majority schools, although the latest data from UDISE Plus 2021-22 data shows that the most essential necessity like drinking water was not available in 48

percent of the government schools in the state of Meghalaya and 25 percent of the Government schools in Tripura. Some select basic facilities have been examined in this section to get an understanding of infrastructure development within the schools in the North Eastern states. Schools with functional computers, availability of electricity connections, availability of library, book bank and reading corner facilities in schools.

The availability of electricity and computers in schools has significantly risen compared to the previous years, but are still far from where it should be. Information technology forms an integral part of an education system in today's day and time. Although evidence suggests that, these are far from the reach of many students in almost all the states. The table below reflect the dismal situation in most of the states with 75 percent schools in Meghalaya, 45 percent schools in Manipur, Tripura and Arunachal Pradesh do not have basic electricity connections in schools. Sikkim was the only state which had electricity connection in more than 94 percent of the schools. This situation when compared between the government and the privately manage schools the data very clearly reflects that the privately manage schools across all states from the region were better equipped with electricity connections.

Table 6: Percentage of Schools with Functional Computers and Electricity Connection

India/ State/ UT	Functional Electricity Connection				Functional Computers			
	Total	Govt.	Govt. Aided	Pvt. Unaided	Total	Govt.	Govt. Aided	Pvt. Unaided
Arunachal Pradesh	53.8	45.4	97.1	94.6	21.7	12.2	85.3	67.4
Assam	75.1	87.8	21.1	76.5	8.4	6.7	3.3	32.1
Manipur	54.5	43.5	30	95.9	20.3	7	4.3	65.6
Meghalaya	24.7	16.2	31.6	37	12.5	6.9	17.3	21.8
Mizoram	79.6	74.8	95.7	87.3	20.3	15.9	30.9	28.2
Nagaland	67.1	57.8	0	91.2	38.1	25.8	0	69.9
Sikkim	98.4	97.7	100	100	61.2	54.2	57.9	77.4
Tripura	55	53	86.1	89.3	16.6	12.8	58.1	60.3
India	86.6	85.4	86.9	91.7	25.9	16.5	50.3	49.1

Source: UDISE + 2021-22, Ministry of Education, GoI.

The post covid era needs to focus on strengthening the IT support systems in schools as the most fundamental requirement towards the E-Learning initiatives. The first step in doing so is by providing functional computers to schools, but the data from 2021-22 school statistics on availability of functional computers in schools presents a very decimal situation. Most of the schools in the region seem to be far from having even minimum requirements of computers. The State wise data reflects that 91 percent of the schools in Assam 88 percent of the schools in Meghalaya, 85 percent schools in Tripura, and close to 80 percent of the schools in Arunachal Pradesh, Manipur and Mizoram did not have the provision of a basic facility like a computer. The situation was even worse in government managed schools, Sikkim was the only state where more than 54

percent of schools had functional computers. The availability of functional computers in Government run schools in all the other 6 States stood at less than 20 percent. This is an alarming situation despite government initiatives to support schools with all inputs. The matter assumes particular significance in light of the NEP 2020 targets.

Availability of Teachers

The academic support system in the schools of the North Eastern region reflects a better scenario as compared to the physical infrastructure, wherein the availability of teachers is relatively high when compared to the number of students studying in these schools. The distribution of female teachers was by and large proportional across the states. The Pupil Teacher Ratio (PTR) is one of the key performance indicators for school education. It is calculated by taking the Ratio of teachers to that of the number of students enrolled. The data for the primary and upper primary level separately shows an adequate number of teachers available for the states of the NER. The highest PTR was for the state of Assam, which had one teacher available for every 18 students, on the contrary the lowest was for the state of Sikkim, which had one teacher available for every six students, followed by Nagaland with a PTR of 1:9. Meghalaya had 3 teachers per school to teach eight grades of the elementary level. These statistics also reveal that the availability of teachers in most of the schools in these states is relatively high but still there were a high proportion of schools that were being run by a single teacher. Taking the average number of single teacher schools, Assam had the highest proportion with 21 students at the primary level and 14 students for every teacher at the upper primary level, followed by Meghalaya (20/14) and Tripura (18/ 20). These three states were also the most populated states in the NER, accounting for a higher PTR. Sikkim, Arunachal Pradesh and Nagaland on the other side had extremely low PTRs, in a way representing small school sizes.

Table 7: Availability of Teachers at the Elementary Education Level

State/UT	Total Teachers	Female Teachers (%)	Pupil-Teacher Ratio: Primary/ UP	Single Teacher Schools* (%)	Average Teacher per School	Distribution of teachers		
						Govt.	Govt. Aided	Pvt. Un-aided
Arunachal Pradesh	23707	48.52	12/9	20.56	6.6	71.07	3.73	23.44
Assam	352944	41.01	21/14	3.80	5.8	63.03	9.91	19.66
Manipur	42684	54.31	13/11	8.23	9.2	40.99	6.11	47.26
Meghalaya	55160	58.42	20/14	6.87	3.8	42.94	32.33	22.56
Mizoram	23366	47.12	16/8	2.37	6.0	55.44	7.90	35.00
Nagaland	31402	55.56	11/8	0.67	11.6	61.82	\$	38.18
Sikkim	13613	60.02	7/8	0.54	10.8	70.70	1.60	27.70
Tripura	36433	34.95	18/20	0.06	7.4	83.98	2.57	11.49
India	9507123	51.30	26/19		6.4	53.87	9.08	33.14

Source: UDISE + 2021-22; * 2017-18

The distribution of teachers is a crucial element in school education and teacher deployment comes as a big bottleneck in our country setting. The latest UDISE + (2021-22) dataset does not give us the data for single teacher schools on the public domain, therefore the U-DISE 2017-18 data has been used to examine the single teacher schools that existed in the NER. The results for Arunachal Pradesh are very alarming, with 21 percent schools having single teachers, followed by Manipur and Meghalaya where 8 to 7 percent schools have single teachers.

Educational Participation

Planned interventions of Sarva Shiksha Abhiyaan(SSA) and Rashtriya Madamik Shiksha Abhiyaan (RMSA) along with several other initiatives have yielded positive results with a significant increase in participation levels and a decline in the wastage. Some the indicators that are used to capture educational participation include percentage of girls enrolled, schools with enrollments less than or equal to 50 students, Student flow rates, Gross Enrollment Rates and Net Enrollment Rates. It must also be noted that the sex ratio in these states varied from 987 females/1000 males in Manipur to 890 females /1000 males in Sikkim. The sex ratio has a bearing on male female differences in educational participation outcome. At the elementary level the proportion of girls enrolled to total enrollments crossed the 50 percent mark only in Assam, rest all the states were marginally below 50 percent. On the contrary a higher proportion of girls were enrolled across all states at the secondary school level in comparison to its population share in the state, and Mizoram represented the highest share with 55 percent girls enrolled. Only Arunachal Pradesh had a share below the national average of 51 percent.

Table 8: Total Enrollments and Percentage of Girls Enrolled

States	Total Enrolled at Elementary	percent Girls enrolled at Elementary Level	No. of Schools having ≤ 50 Enrollment at Elementary*	Total Enrolled at Secondary Level	percent Girls enrolled at Secondary Level
Arunachal Pradesh	248991	48.0	60.6	79315	48.1
Assam	5551138	49.8	46	1550434	51.0
Manipur	460886	50.3	60	170585	52.9
Meghalaya	774398	50.6	67.6	180540	49.7
Mizoram	208598	48.9	58.3	68739	55.3
Nagaland	274394	49.5	49.8	92781	51.8
Sikkim	75359	48.5	60.2	40970	52.0
Tripura	491957	48.3	42.7	192222	52.9
India	188632942	47.9		67107681	50.8

Source: UDISE +, 2021-22. *U-DISE 2016-17.

The school size also forms an important criterion to understand school participation and closely looking at the school size in the region, it is clearly evident that large proportions of school consist of small schools and have less than 50 children enrolled. The higher populated states of Assam and Tripura have a lesser number of smaller schools as compared to the other states. More than 67 percent of the schools in Meghalaya had less than 50 students enrolled, followed by Arunachal Pradesh, Manipur and Mizoram where more than 50 percent of the total schools had less than 50 students enrolled in each school. This becomes a cause of concern as large amount of resources are being invested into educational systems, and schools with low PTR and low enrollments do not make the best utilization. The number of students enrolled in a school is also significant as a smaller size may increase the per student cost incurred, this calls for the greater involvement and engagement of state governments, civil society organizations to work out better planning methodologies to rationally open new schools only where required.

Table 9: Enrollment Ratios

India/ State/ UT	Gross Enrolment Ratio			Net Enrolment Rate			
	Elementary	Secondary	Higher Secondary	Primary	Upper Primary	Secondary	Higher Secondary
Arunachal Pradesh	109.9	66.5	53.7	99.3	57.6	37.3	31.2
Assam	109.8	74.5	40.1	100	73.9	48.6	26.7
Manipur	117.6	76	69.9				
Meghalaya	155.7	85.1	46	100	75.7	47.2	24.8
Mizoram	137.5	93.4	61.3	100	76.7	51.7	35.6
Nagaland	87.3	62.2	35.8	82.2	48.5	36.4	21
Sikkim	92.9	89.1	64.2	84.8	52.8	44.4	32.2
Tripura	109.1	81.3	56.3	100	79.8	68.1	47.1
India	100.1	79.6	57.6	88.6	71.3	47.9	34.2

Source: UDISE + 2021-22

The population participating in the education system demonstrates the accessibility s/he has to education. Looking at the Gross Enrollment Ratios (GER), which is calculated by taking all those enrolled at a particular level of education, in relation to the population in the age groups for a particular level of education shows that GER at the Elementary level in most states were above the national average, except the states of Sikkim and Nagaland that were marginally low at 87 and 93 percent respectively. The secondary and Higher Secondary GER represented a better scenario in most states when compared to national averages of 79.6 percent. The GER for Nagaland was as low as 36 percent. Age-appropriate learning is often stressed, so that a child learns according to his mental and physical capacity. The Net Enrollment Ratio (NER) is an important key indicator based on age wise enrollment in a grade to the actual age wise population for a particular grade. The NER rules out those who are

overage and underage children at a particular level of schooling. The NER represents a sharp decline when compared to the GER for the states with the lowest being for Meghalaya, and Mizoram at the Elementary level. The NER for the secondary level of schooling represented an even dismal picture and only in Tripura (47 percent) the ratio was close to 50 percent market.

Educational Wastage: The total numbers of students who drop-out of an education system have significantly reduced over the years; this could be an outcome of the various initiatives taken by the government along with incentives given to students. Although the number of those who dropped out are relatively low at the elementary level compared with the secondary level dropouts, the data from UDISE + for the two indicators of repetition rate and drop-out rates, for the North Eastern states presents varying picture. At the elementary level the repetition rates have improved significantly. Nagaland represented the highest proportion repeaters followed by Sikkim, which were slightly higher than the national average.

Table 10: Repetition and Dropout Rates

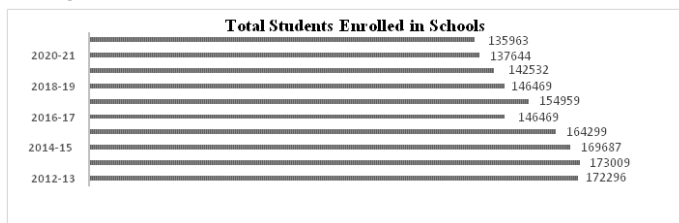
States	Repetition Rate			Dropout Rate		
	I-V	VI-VIII	XI-X	I-V	VI-VIII	IX-X
Arunachal Pradesh	2.4	1.7	1	9.3	6.7	11.7
Assam	0.2	0.3	1.1	6	8.8	20.3
Manipur	0.2	0.1	0.1	13.3	5.6	1.3
Meghalaya	1.3	1.6	4	9.8	10.6	21.7
Mizoram	0.1	0.1	1.9	6.4	2.7	11.9
Nagaland	1.7	2.2	3.9	5	4	17.5
Sikkim	0.1	0.2	2.1	1.8	0	11.9
Tripura	0.2	0.3	1.3	1.1	4.5	8.3
India	0.5	0.7	1.1	1.5	3	12.6

Source: UDISE +, 2021-22

The second indicator taken to measure wastage in this section is the dropout rate, which also represents a varying trend. A commonly known fact is that the average number of students that dropout from the schooling system increases as one moves up in the educational ladder, but the same was not the case in most of the north eastern states, as some states represented higher dropout rates at the primary level. At the Elementary level the dropout rates were higher in the states of Manipur, Arunachal Pradesh and Meghalaya. Except Tripura all the eight North Eastern states have a higher dropout rate when compared to the national average of 1.5 percent. The dropout rates at the secondary level further increased in most of the states and the increase was most sharp in the states of Meghalaya (21.7 percent), Assam (20.3 percent) and Nagaland (17.5 percent). Therefore, dropping out of the schooling system comes as one of the main challenges in most of the states that needs to be looked into.

Enrolment Trends in Sikkim: Ironically number of students enrolled in school education Sikkim has declined over the years, which is a direct outcome of the shrinking demographic size. The state had over 17 lakh students enrolled in 2012-13, which declined 13.5 lakh students in 2021-22. Overall, the decline in the number of students enrolled has been steady in the last ten years. In such a scenario, planners need to focus on school requirements and its related inputs for the future years and utilize resources systematically.

Fig 3: Total Students Enrollment in Sikkim 2012-13 to 2021-22



Repetition Trends Figure 3 shows the decline in the number of repeaters at both the primary (17 percent) and upper primary level (18 percent) in 2007-08 to below 1 percent by 2015-16. These are also outcomes of policy decisions taken under the SSA and Right to Education of not detaining students. On the contrary the dropout rates represent a fluctuating trend, which declined from 5.2 percent in 2007-08 to 2.2 percent in 2012-13 but again increased to 4.6 percent in 2014-15 and declined in 2015-16. The dropout rates at the secondary level taken for three years represents an increasing trend which is great cause of concern, as the average dropout rate at the secondary level was 9.23 percent in 2013-14 and it increased to almost 16 percent in a matter of two years. A higher proportion of males dropped out as compared to females.

Fig. 4: Average Repetition Rate

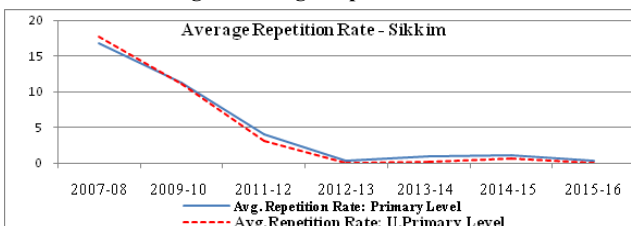
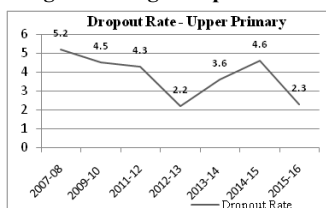
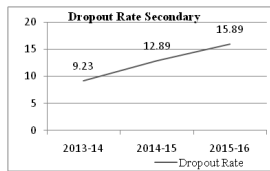


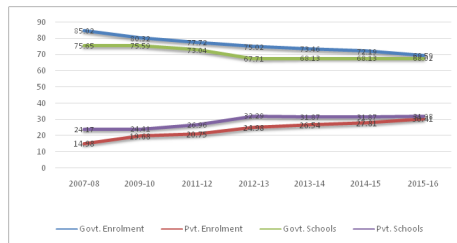
Fig. 5: Average Dropout Rates





Management-wise Schools and Enrollments in Sikkim: Figure 4 below represents the percentage share of students enrolled in schools and the percentage share of schools under government and private management. It is clearly visible that the gap in both the number of schools and enrollments in the schools is narrowing over the years.. Overall, there were 75.6 percent government schools that had 85 percent of the total enrollments, in relation to 15 percent private schools with 24 percent enrollments in 2007-08. The share drastically changed to 68 percent of Government schools having share of 69 percent enrollments as compared to a share of 30 percent private schools with 32 percent enrollments in 2015-16.

Fig. 6: Management wise Schools and Enrollments Sikkim



Source: UDISE 2016-17

Some Major Findings

The literacy rates in the North Eastern states have been rather impressive as all the states apart from Arunachal and Assam. The five states of Mizoram, Tripura, Sikkim, Nagaland and Manipur respectively figure amongst the top ten states with highest literacy. The literacy trends have shown a steady increase with most states above the national average. Demographically India is a young country and the eight North Eastern States contribute to the composition of this young population, with the average age being 23 years, as compared to 25 years for the country as a whole. Meghalaya, Arunachal Pradesh and Nagaland had the highest share of those in the school going age groups, whereas Sikkim and Tripura has the lowest share. Physical accessibility in terms of school distribution was highest in Meghalaya and Mizoram while Assam and Meghalaya had a higher density of schools. There were a higher proportion of stand-alone schools, with 75 percent of schools being at the elementary level across the states. . The SCR at the secondary level were relatively high with the states of Tripura, Arunachal Pradesh and Assam has a higher ratio than the prescribed norms of 40 and the lowest was in the state of Mizoram Another major concern is the availability

of electricity in schools. Sikkim was only state which had electricity connection in more than 94 percent of the schools. Overall educational participation was high in the region, but showed declining trend as one moved up the ladder of education. The school size was bigger for the highly populated states of Assam and Tripura, whereas, more than 67 percent of the schools in Meghalaya had less than 50 students enrolled, followed by Arunachal Pradesh, Manipur and Mizoram where more than 50 percent of the total schools had less than 50 students enrolled in each school.

Conclusion

Although northeast region has been known for its economic backwardness, however in respect of development of education, most of the states in the region have done well when compared to national level notwithstanding the many shortfalls that need special focus. Schools in the region need to be provided with minimum standards to enhance learning levels of students, which needs immediate attention. The IT support system provided in schools is negligible, in light of the E-learning revolutions taking place, the government schools need to strengthen its base.

It is a well understood fact that the states in north east India have their own internal challenges of political unrest, international boundaries, cultural and ethnic tensions and employment opportunities to name a few. But moving beyond these the governance mechanism in the region also needs to be strengthened, with stakeholders taking educational planning and monitoring as a priority.

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