

**SCHOOL DROPOUTS AND ITS IMPACT ON THE  
SOCIETY IN SIKKIM**

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**“THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE  
DEGREE OF MASTER OF PHILOSOPHY”**

**FEBRUARY, 2015**

## **DECLARATION**

I declare that the thesis entitled “**School Dropouts and Its Impact on the Society in Sikkim**” submitted to Department of Economics, Sikkim University for the degree of Master of Philosophy. The research work brings to the light the results of an original investigation made by me and it is authentic in nature. The thesis is work of my own and has not been submitted for any other degree of this University or any other University.

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## **CERTIFICATE**

This is to certify that the thesis entitled “**School Dropouts and Its Impact on the Society in Sikkim**” submitted to Department of Economics, Sikkim University in partial fulfillment of the requirements for the degree of **Master of Philosophy in Economics**, embodies the result of bona fide research work carried out by **Mr. Manjeel Rai** under my guidance and supervision. He has fulfilled the requirements relating to the nature, period of research and presentation of seminar talk etc.

It is also being certified that the research work brings to the light the results of an original investigation made by **Mr. Manjeel Rai** and no part of the thesis has been submitted for any degree, diploma, associate-ship and fellowship.

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# CHAPTER-I

## INTRODUCTION

### 1.1 Introductory View

The word ‘school dropout’ is defined as “a child who enrolls in school but fails to complete the relevant level of the educational cycle”. Therefore, dropping out of school is a situation when a child is not getting an education or he/she totally forfeits the journey of education in his or her life. In short, dropping out from school is simply an early exit from school. A ‘dropout’ is a pupil who leaves school before the completion of a school stage or leaving at some intermediate or non-terminal point of a given level of education (school stage).

This term ‘dropout’ has been used in two senses. It may mean either: (a) one who has discontinued education before completing the last level of education for which he/she was enrolled or (b) one who has discontinued education before attaining a specific level. According to the first definition, for example, if a person has completed the upper primary level but does not enroll for higher education, he/she is not considered a dropout. It is considered as a case of discontinuation. However, if the person enrolls for the secondary level but does not complete it, then he/she is considered a dropout. According to the second definition, in either case the person would be considered a dropout, when, secondary level is considered as specific level. It is assumed that dropout rates are the converse of survival rates.

“When a student drops out of school, we all are going to pay. The dropout rate has serious economic, societal, and political effects on our nation”<sup>1</sup>. Therefore, school dropouts have become a global issue and a common phenomenon in most of the developing countries including India. Perhaps, student’s dropping out of school before completion has been a major challenge universally for educators, parents and governments. Indeed, it has become silent epidemic in India. In spite of several government initiatives, the incidence of school dropouts in India has remained high. The concept of dropouts reflects the internal insufficiency of the education system and roughly indicates the wastage involved in the school’s education. Despite decades of the school improvement initiatives and government efforts to curb ‘dropouts, many young

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<sup>1</sup> Marcella r. Dianda, Ed.D. *Preventing future high school dropouts: An advocacy and action guide for NEA State and Local Affiliates*. Published November 2008, copyright 2008 by the National Education association All Right Reserved.

people still do not cross the finish line of secondary education and eventually drop out from school.

During the post-independence era, India adopted a National Policy for children in 1974, declaring children to be the nation's most precious asset. Several subsequent steps were taken to strengthen the education system in the country in terms of achieving the goal of providing education to all through universal enrolment, and ensuring literacy for all children of school going age either through formal or non formal system of education. However, the quality aspect of education remains by and large a neglected area till today.

India with its substantial human resource has the potential to be a leading knowledge power in the world if the education system from the very beginning is designed to ensure quality output. Because of the poor economic condition of a large section of the population in rural India, even today most parents cannot afford to send their children for early schooling. Further, a number of first generation learners who do not get any support from their parents at home, the role of teachers in imparting education are extremely important. Endeavour has been made by successive governments to ensure that every single child in India has access to great teachers, thereby democratising quality education for all children across the country.

The development of India during the last decade is reflected in rising productivity in all sectors. The role of education either directly or indirectly in improving this productivity cannot be undermined. India with its abundant natural resources including human resources needs a sound educational system that would ensure optimum utilisation of these resources to keep the nation on a growth to track in a sustainable development.

Education is the key for economic growth as well as social transformation of a country. Among the key indicators of socio-economic development such as the growth rate of the economy, literacy rate, birth rate, death rate and infant mortality rate (IMR), the literacy rate of the country is one of the most vital as the rise and fall of others largely depends upon the country's literacy rate. In India the increase in literacy rate over the years has led to low birth rate as well as low IMR and increased life expectancy

The census of India (2011) presented a gloomy picture of the literacy situation in the country. Even after 65 years of independence, only 74% of the country's total population of 1,210,193,422 is literate. The male literacy rate is 82.1% while that for females was only 65.5%.



Among the states, Kerala has been the most literate state in the country with about 94% literacy. Sikkim stood at the 7<sup>th</sup> rank after Maharashtra in literacy rate with a literacy rate of 82.20 % with the increase in the literacy rate by 13.39 % during 10 years period. Therefore, wastage involvements in education system in India turn out to be because of school dropout.

The number of school dropouts in India is not small. In a study in 2010, Reddy and Sinha stated that of the more than 27 million children in India, who joined in Class I in 1993, only 10 million of them reached Class X, which is only about 37% of those who entered the school system and in more than half the states, only 30% of children reached Class X<sup>2</sup>. With the implementation of RTE and other praise worthy educational policies, of course, there has been a gradual decline in the annual average dropout rate from 9.1 in 2009- 2010 to 6.9 in 2010-11<sup>3</sup> but there have been dropouts in 2010-11 as compared to 2009-2010 in 10 out of the 30 states where RTE has been notified, including progressive states like Tamil Nadu and Gujarat that had witnessed an increased dropout ratio from 0.1% to 1.2% and 3.9% to 4.3% respectively in 2009-10 and 2010-11<sup>4</sup>. But the overall school dropout statistics show a declining trend in the last few decades which is evident from the table-1.1.

**Table 1.1: Drop-out rates of all categories of students 1999-2001 to 2009-2010 in India<sup>5</sup>**

Year	Primary(I-V)			Elementary (I-VIII)		
	Boys	Girls	Total	Boys	Girls	Total
1999-00	39.8	41.0	40.3	53.3	57.7	55.1
2000-01	39.7	41.9	40.7	50.3	57.7	53.7
2002-03	38.4	39.9	39.0	52.9	56.9	54.6
2003-04	35.85	33.72	34.89	52.28	53.45	52.79
2004-05	33.74	28.57	31.47	51.85	52.92	52.32
2005-06	31.81	25.42	29.00	50.49	51.28	50.84
2006-07*	28.71	21.77	25.67	48.67	48.98	48.80
2009-10**	30.25	27.25	28.86	40.59	44.39	42.39

Source: Selected Educational Statistics 2007-08, Ministry of Human Resource Development, GOI, \*DISE report. \*\*\*Combined dropout rate for India after consideration for all states and UTs. Source: Abstract of Selected Educational Statistics 2009-10; Ministry of Human Resources Development; GOI

<sup>2</sup> Reddy Anugula N and Sinha Shantha, School Dropouts or Pushouts? Overcoming Barriers for the Right to Education, *NUEPA*, 3 (2010)

<sup>3</sup> Daily News and Analysis, India, online: [http://www.dnaindia.com/india/report\\_rte-report-carddropout-rate-in-schools-falls\\_1669959](http://www.dnaindia.com/india/report_rte-report-carddropout-rate-in-schools-falls_1669959), April 1 (2012) accessed on December 30, 2014.

<sup>4</sup> Times of India, [http://articles.timesofindia.indiatimes.com/2012-04-01/india/31269828\\_1\\_rte-provisionsdropout-rate-teacher-student-ratio](http://articles.timesofindia.indiatimes.com/2012-04-01/india/31269828_1_rte-provisionsdropout-rate-teacher-student-ratio), April 1, (2012) accessed on October 30, 2012

<sup>5</sup>

Sikkim is a small state merged with Indian union on 15th April, 1975 as the 22nd state of the country. Sikkim is also known as Shikim or Su Khyim; the origin theory of the name Sikkim is that it is a combination of two Limbu words Su, which means "new", and Khyim, which means "palace" or "house". The name is believed to be a reference to the palace built by the state's first ruler, Chogyal<sup>6</sup> Phuntsog Namgyal. The Tibetan name for Sikkim is Denjong, which means "valley of rice" while the Bhutias call it Beyul Demazong, which means "the hidden valley of rice". The Lepcha people, the original inhabitants of Sikkim, called it Nye-mae-el, meaning "paradise". In History, Sikkim is known as Indrakil, the garden of the War God Indra.

Sikkim is a landlocked Indian state located in the Himalayan's mountains. The state is bordered by Nepal to the west, China's Tibet autonomous Region to the north and east, and Bhutan to the east. The Indian state of West Bengal lies to the south. Sikkim is India's least populous state, with 607,688 inhabitants (as per 2011 census). Sikkim is also one of the least densely-populated Indian states, with only 86 persons per square kilometer. However, it has a high decadal population growth rate, e.g. 12.36% between 2001 and 2011. The sex ratio is 889 females per 1000 males, with a total of 321,661 males and 286,027 females (Census Report 2011). With 50,000 inhabitants, the capital Gangtok is the only significant town in the state. The per capita income in Sikkim stands at 11,356, which is one of the highest in the country<sup>7</sup>.

The majority of Sikkim's residents are of Nepali ethnic origin. The native Sikkimese consists of the Bhutias, who migrated from the Kham district of Tibet in the 14th century, and the Lepchas who are believed that they are the original tribe or inhabitants in Sikkim migrated from the Far East. Tibetans reside mostly in the northern and eastern reaches of the state. Migrant resident communities include Biharis, Bengalis and Marwaris, who are prominent in commerce in South Sikkim and Gangtok.

Sikkim is a multi-lingual state, where people of diverse communities live cordially. Nepali is the major spoken language in Sikkim. In municipal areas, English is commonly used for day to day communication. Hindi, being the national language, also finds its place in general communication. In Sikkim, people use several local dialects such as Tibetan, Bhutia, Lepcha Limboo, Rai etc. English is used for all official communication in the state and Hindi is understood and spoken by the majority of people.

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<sup>6</sup> King.

<sup>7</sup> . Census 2011.

Sikkim is the smallest economy among all Indian states. Sikkim's GDP was US\$ 0.73 billion in the year 2010-11<sup>8</sup>. The Himalayan state's per capita income was Rs 48,937 during 2010-11, which was the second highest among all the eight northeastern states. The per capita income in Sikkim increased to Rs 36,075 in 2009-10 (much above the national figure of Rs 33,731) from Rs 26,693 in 2004-05.

### **Educational background of Sikkim:**

An examination of the history of the education system in Sikkim reveals four modes of education have been prevalent at different periods in Sikkim. The traditional education of Sikkim was very life-centered, practical and experience based. The famous Nepali saying '*pari guni ke ham, haolo joti mang*' (What is the use of reading and writing as ultimately you have to plough the field) reflected the thinking of the people of that time. On the attainment of adolescence youngsters were provided hands-on knowledge in matters like ceremonies, and functions. The family was the focal point of nearly all educational endeavors with a key role being played by women. Apart from the reading of Buddhist religious literature at home, education in Sikkim for most of the nineteenth century was of the monastic type.

Chogyal Sidkeong Tulku was the only Sikkimese ruler to have been educated abroad at the University of Oxford, and he gave a new dimension to education in Sikkim. In 1909, he founded the Enchey School as a monastic school at Gangtok; today it is a higher secondary school. Schools in Tashiding, Tulung, Pemayongtse and Sangnachaling monasteries were famous as centers of monastic education in those days (Jangira, 1977). The genesis of these schools could be traced back to the arrival of Buddhism in Sikkim. Famous scholars like Shanta Rakshita and Guru Padma-Sambhava brought Buddhism to Tibet, which was later brought back to Sikkim by the Tibetan lamas, who consecrated the first ruler of Sikkim at Yuksom and thus got the support of temporal power as well. Even today the Ecclesiastical Department in the Government of Sikkim has recorded 163 monasteries and temples all over Sikkim excluding the small shrines. Monasteries and temples have made a significant contribution to education in Sikkim.

Buddhist literature, especially the Mahayana and Tantric texts, were available in Tibetan, which has been the medium of instruction. Christian missionary education in Sikkim began in the late nineteenth century with some support from the landlords or kazis, some of whose schools had

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<sup>8</sup>. Planning Commission 2011

been handed over to the Scottish missionaries. On the whole Christian missionary activity was not favored by the rajas in Sikkim. The missionaries were not allowed to live in Gangtok. In 1924, Mary Scott was allowed to open a school for girls in Gangtok. The first matriculation class passed the examination (consisting of four candidates) in 1945 and the school continued to grow, becoming a recognised higher secondary school in 1961 (Ritchie, 1977). A striking feature of the Christian missionary schools for girls was 'industrial' teaching, consisting mainly of sewing and knitting. Vocational training was also a part of the curriculum. In fact, for many years until the beginning of the twentieth century, primary schools set up by the church offered the only means of basic education.

The Bhutia Boarding School (1906) was the first government school in Sikkim. The second government school, Nepali Boarding School was started in 1907 in what is the Lal Bazaar area in Gangtok today. In 1924, the government amalgamated the Bhutia and Nepali Boarding Schools into what has grown today to become the Sir Tashi Namgyal Academy. By the year 1920, Sikkim had 21 schools (6 government schools, 13 mission schools and 2 schools under landlords). This number continued to increase over the years. In 1961, at the end of the First Plan period, the number of schools in Sikkim was in fact 182, registering an increase of 107 per cent as against 1954, when there were only 88 schools.

But during the last three decades, the state has made considerable progress in educational sector and has been providing free education to the children through a wide network of government schools. The Government schools include lower primary schools, primary schools, junior high schools, high schools and senior secondary schools.

In the formal system of education, the main categories of schools are:

1. Pre-Primary Schools: Pre-primary school education is divided into two levels viz., lower KG (for children between 3–4 years) and upper KG (for children between 4–5 years).
2. Lower Primary Schools: This serves as the link between pre-primary school and primary education. However, not much emphasis is laid on this level by the prevailing education system.
3. Primary Schools: The Government has made primary education compulsory for children between the age group of 6 to 14 years vide the Right to Education Act, 2010.
4. Secondary Schools: This level serves as a link between elementary and higher education.

5. Senior Secondary Schools: After class ten, a student is admitted to senior secondary school which has three streams, viz., Arts, Science and Commerce. This is the last stage of school education with classes XIs and XII.

Higher Education: This level includes graduate and post graduate classes of education. After completion of senior secondary education, students can choose fields of their interest and pursue graduate and then post graduate courses.

Following table shows the overall figures of literacy rate in Sikkim.

**Table: 1.2- District-wise Figures on Literacy Rate in Sikkim: 2001 &2011**

Sl. No	Year	Item	North	South	West	East	Sikkim
1	2001	Literacy Rate	67.21	67.31	58.80	74.67	69.68
2	2011	Literacy Rate	77.39	82.07	78.69	84.67	82.02

Source: A Statistical Profile 2002 & Census 2011

During the ten years period, Sikkim has improved to a great extent in literacy rate with the average growth of 12 %. While if we see the district wise growth on literacy rate then the performance of West district is better than rest of the districts with a average growth of 20% over the ten years.

In the absence of any State Education Board in Sikkim, the Central Board of Secondary Education (CBSE) and Indian Certificate Secondary Education (ICSE) are the two leading national boards that affiliate all the Secondary (High School) and Senior Secondary (up to class XII) Schools of Sikkim. The Directorate of Education conducts the examination up to class VIII. Two board examinations after class X and XII examinations are conducted by ICSE or CBSE. The state has encouraged its children by providing free education for the age group of 6-14 as per the provision of RTE<sup>9</sup>, 2010. The Sarva Siksha Abhiyan” the flagship education project of Government of India has been implemented effectively in Sikkim since 2001. All these steps have helped the state to raise its literacy percentage to 82.2%<sup>10</sup> which is higher than the national

<sup>9</sup> Right to Education.

<sup>10</sup> 11<sup>th</sup> Five Year Plan (2007-2012)

average but at the same time the school dropout rate from classes (I-X) are still remains high in Sikkim with 80.73 %<sup>11</sup>.

### **Educational Schemes and Policies in India:**

Several policies and execution initiatives have been taken by Government of India since independence to strengthen the education system of the country. The Kothari commission (1964), National Policy in Education (1986), Programme of Action (1992), Central Advisory Board of Education (1991), Sarva Siksha Abhiyan (2000), Rashtriya Madhyamik Shiksha Abhiyan(2009) and Right to Education Act (2010), Mid- Day Meal Scheme (1995) are landmark policy decisions and actions that the country has taken so far for achieving the goal of providing education to all through universal enrolment, either by formal or non formal system of education.

#### *The National Policy in Education (1968):*

The National Policy in Education (1968) marked a significant step in the history of education in post- independence India. It aimed to promoting national progress, a sense of common citizenship and culture, and to strengthen national integration. It laid stress on the need for a radical reconstruction of the education system, to improve its quality at all stages, and gave much greater attention to science and technology, the cultivation of moral values and a closer relation between education and the life of the people.

Since the adoption of the 1968 Policy, there has been considerable expansion in educational facilities all over the country at all levels. More than 90 per cent of the country's rural habitations now have schooling facilities within a radius of one kilometer. There has been sizeable augmentation of facilities at other stages also. Perhaps the most notable development has been the acceptance of a common structure of education throughout the country and the introduction of the 10+2+3 system by most States. In the school curricula, in addition to laying down a common scheme of studies for boys and girls, science and mathematics were incorporated as compulsory subjects and work experience assigned a place of importance. A beginning was also made in restructuring of courses at the undergraduate level. Centres of Advanced Studies were set up for post-graduate education and research. These have helped in meeting our requirements of educated manpower.

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<sup>11</sup> Educational Statistics 2009-10; Ministry of Human Resources Development; GoI.

*Sarva Shiksha Abhiyan (SSA) 2000:*

Currently, Sarva Shiksha Abhiyan (SSA) is a comprehensive and integrated flagship programme of the Government of India (GoI), for attaining Universal Elementary Education (UEE) in the country in a mission mode. Launched in partnership with the State governments, SSA aims to provide useful and relevant education to all children in the age group of 6-14 years by 2010. It is implemented as India's main programme for universalising elementary education. Its overall goals include universal access and retention, bridging of gender and social category gaps in education and enhancement of learning levels of children. SSA provides for a variety of interventions, including inter alia, opening of new schools and alternate schooling facilities, construction of schools and additional classrooms, toilets and drinking water, provisioning for teachers, periodic teacher training and academic resource support, text books and support for learning achievement. These provisions need to be aligned with the legally mandated norms and standards and free entitlements mandated by the RTE Act.

The four SSA Goals are as follows:

- i. Enrolment of all children in school, Education Guarantee Centre, Alternate school, 'Back-to-School' camp by 2005.
- ii. Retention of all children till the upper primary stage by 2010.
- iii. Bridging of gender and social category gaps in enrolment, retention and learning.
- iv. Ensuring that there is significant enhancement in the learning achievement levels of children at the primary and upper primary stages.

*Rashtriya Madhyamik Shiksha Abhiyan (RMSA):*

RMSA is a centrally sponsored scheme of the Ministry of Human Resource Development, Government of India for ensuring the development of secondary education in public schools throughout India. It is being implemented in the country to achieve the 11th Plan targets. The RMSA was launched in April 2009 with the basic developmental objectives of universalising access to and improving quality of secondary education (Grades IX-X) in the country for all children between 15-16 years of age groups. In other words, the RMSA aims at making secondary education of good quality accessible and affordable for all young people<sup>12</sup>.

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<sup>12</sup> Wikipedia ,3 May 2014: Rashtriya Madhyamik Shiksha Abhiyan

Specifically, the RMSA aims at: (i) maintaining standards in secondary education by making schools conform to the prescribed norms relating to physical facilities, staff and academic matters (rationalising facilities, staff and TLM across secondary schools as per norms); (ii) universalising physical access to all young people (taking a distance norm of 5 kilometers at secondary and 7 kilometers at higher secondary stages); (ii) improving participation and retention in secondary education (75% GER<sup>13</sup> at secondary stage by 2013/14, 100% GER by 2016/17, and universal retention by 2020); (iii) overcoming barriers to secondary schooling due to gender, socio-economic status, disability and other disadvantaged circumstances (improving equity and delivery of secondary education); and (iv) enhancing intellectual, social and cultural learning in secondary schooling i.e. improving quality of learning outcomes (a very ambiguous objective in the absence of benchmarks in the quality of secondary schooling, often measured in terms of pass percentage in board examination).

*Right to Education Act (RTE) 2010<sup>14</sup>:*

It is an act of the Parliament of India enacted on 4<sup>th</sup> of August 2009, which describes the modalities of free and compulsory education for children between the age groups of 6 to 14 in India under Article 21A of the Indian Constitution. The Right of Children to Free and Compulsory Education Act, 2009 (RTE Act) was enacted to give effect to this fundamental right. This Act came into effect on the 1st of April, 2010.

The demand for free and compulsory education in India was voiced early on during the freedom struggle; for instance, in the year 1882, Jyotiba Phule from Bombay Presidency, in his evidence before the Indian Education Commission headed by Sir William Hunter, demanded that state sponsored free and compulsory education be made available to all children until the age of 12 years. Later in 1911, Gopal Krishna Gokhale moved a private bill to demand free and compulsory education in the Imperial Legislative Assembly, which was, however, thrown out.

The title of the RTE Act incorporates the words 'free and compulsory'. 'Free education' means that no child, other than a child who has been admitted by his or her parents to a school which is not supported by the appropriate Government, shall be liable to pay any kind

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<sup>13</sup> Gross Enrollment Ratio.

<sup>14</sup> Wikipedia, 16 November 2014: Right to Education Act.



of fee or charges or expenses which may prevent him or her from pursuing and completing elementary education. 'Compulsory education' casts an obligation on the appropriate government and local authorities for providing and ensuring admission, attendance and completion of elementary education by all children in the age group 6-14. With this, India has moved forward to a rights based framework that casts a legal obligation on the central and state governments to implement this fundamental child right as enshrined in the Article 21A of the Constitution, in accordance with the provisions of the RTE Act.

*Mid- Day Meal (1995)*<sup>15</sup>:

The national programme of nutritional support to primary education, commonly known as the mid-day meal (MDM) scheme was launched in 1995. It is a nation-wide Central scheme intended to improve the enrollment and regular attendance and reduce dropouts in school. It was also intended to improve the nutritional status of primary school children. MDM is the largest school nutritional programme in the world and is meant to provide at least 450 calories and 12 grams of protein to children in all government and government aided primary schools. This scheme has not only helped to feed children with quality meals but also served as the important tool for reducing primary dropouts in India.

The State government is trying to enhance the education level of students by providing free clothes and distribution of books and also free education up to class six. State Government has also implemented Central scheme and facilities like MDM, RTE, and SSA strongly for every student, simply to encourage them to stay in the school.

The State government also provides scholarships for merit students and for minorities which helps the people from such backgrounds to send their children to school for education. In addition the government is also trying its best to implement suitable schemes and facilities for enhancing the quality of education and minimising school dropouts in Sikkim. However, dropping out of school is still being viewed as a serious educational and social problem. By leaving school stage prior to completion most dropouts have serious educational deficiencies that severely limit their economic and social well-being throughout their adult lives. The individual consequences lead to social costs of billions of Rupees.

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<sup>15</sup> Misra & Puri, *Indian Economy*; Himilaya Publishing House Delhi, p.p-300-301.

Despite these long-term declines in dropout rates, interest in the dropout issue among educators, policymakers, and researchers has increased substantially in recent years. State and local education officials are currently devoting more time and resources to measuring the extent of the problem, to examining its causes, and setting up programs for dropout prevention and recovery. Policymakers are promoting and supporting these efforts and passing legislation to fund them. The following table shows the dropout scenario at the national level as well as in some of the important States and UTs.

So from the table given below makes it clear that Sikkim still ranked high in terms of school dropout in case of junior high school and secondary school during 2009-10. In term of high school dropouts Sikkim was the highest followed by Bihar. Whereas, Kerala and Goa has a least or negative school dropout rate in India.

**Table 1.3: Dropout Rates in Classes I-V and I-VIII and I-X in India (2009-10)<sup>16</sup>**

S. No	States/UTs*	Classes I-V(6-11 years)			Classes I-VIII (6-14 yrs)			Classes I-X (6-16 yrs)		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1	2	3	4	5	6	7	8	9	10	11
1	<b>Assam</b>	<b>38.99</b>	<b>32.67</b>	<b>35.89</b>	<b>59.94</b>	<b>62.55</b>	<b>61.21</b>	<b>77.41</b>	<b>77.82</b>	<b>77.60</b>
2	<b>Bihar</b>	<b>43.51</b>	<b>40.97</b>	<b>42.45</b>	<b>64.98</b>	<b>67.33</b>	<b>66.02</b>	<b>78.46</b>	<b>76.06</b>	<b>77.56</b>
3	<b>Goa</b>	<b>-12.44</b>	<b>-4.29</b>	<b>-8.54</b>	<b>-25.08</b>	<b>-10.07</b>	<b>-17.86</b>	<b>35.85</b>	<b>32.63</b>	<b>34.30</b>
4	<b>Himachal Pradesh</b>	<b>0.35</b>	<b>1.17</b>	<b>0.74</b>	<b>1.42</b>	<b>3.41</b>	<b>2.38</b>	<b>22.28</b>	<b>18.93</b>	<b>20.65</b>
5	<b>Kerala</b>	<b>-13.99</b>	<b>-11.02</b>	<b>-12.52</b>	<b>-16.71</b>	<b>-11.51</b>	<b>-14.14</b>	<b>-2.94</b>	<b>-5.20</b>	<b>-4.06</b>
6	<b>Mizoram</b>	<b>44.68</b>	<b>47.46</b>	<b>46.03</b>	<b>56.37</b>	<b>53.70</b>	<b>55.10</b>	<b>64.79</b>	<b>60.72</b>	<b>62.87</b>
7	<b>Sikkim</b>	<b>24.57</b>	<b>11.98</b>	<b>18.58</b>	<b>50.98</b>	<b>38.15</b>	<b>44.67</b>	<b>82.07</b>	<b>79.36</b>	<b>80.73</b>
8	<b>India</b>	<b>30.25</b>	<b>27.25</b>	<b>28.86</b>	<b>40.59</b>	<b>44.39</b>	<b>42.39</b>	<b>53.38</b>	<b>51.97</b>	<b>52.76</b>
Note:* Selected States have been taken by author for comparisons. Expected (-) sign denotes zero dropouts rates. Source: Abstract of Selected educational Statistics 2009-10; Ministry of Human Development Report, GoI.										

<sup>16</sup> Databook for DCH, 18<sup>th</sup> October, 2013, Page 219 of 308

## 1.2 Statement of the Problem

No one really knows what causes students to drop out from school. Dropouts themselves have the underlying facts or reasons for leaving school, with marked differences reported by different social groups. According to Russell W. Rumberger<sup>17</sup> in his study he has found that almost one half of all dropouts cited school-related reasons for leaving school, such as disliking school or being expelled or suspended. Forty percent of all dropouts cited economic reasons for leaving school and rest of the dropouts reported that personal reasons for leaving school, such as pregnancy or marriage. Therefore, thousands upon thousands of young people are being left behind and then abandoning school that have either actively failed them or failed to successfully extend a lifeline to help them recover once they fall off track from school.

Dropping out of school affects not only those who leave school but also society at large. Moreover, the social consequences go beyond the economic and psychological impacts that befall individual school dropouts. It is argued that dropping out of school often leads to 'economic and social tragedy'. A high school dropout is far more pitiful than graduate to be unemployed, person to be in prison, people to be unmarried or divorced, and person living in poverty. So what we know about the students who have been dropped out? The fact is we know only little lived experiences of individual student who have been dropped out from school. Qualitative finding in the research has been lacking and we are failing to know the actual conditions or situations, why students have been dropped out from school. People conduct the school dropout survey which lacks the precision in obtaining data or they simply put on their own purpose. Many researchers are failing to draw the proper conclusion which can make sense to highlight the actual problems.

The existing literature on school dropouts suggests that three types of factors contribute to school dropout, viz., - school related, society related and family related factors. So the study concentrated on these factors. The occurrence of school dropouts is a global issue and a common phenomenon. Dropout prevention and minimisation is the concern of every society, state and country as a whole.

Government policies and schemes such as RMSA, RTE, SSA, and MDM etc are offered as commendable efforts made by the government. However, the quality aspect of education has

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<sup>17</sup> Russell W. Rumberger, *High School Dropouts: A Review of Issues and Evidence*.

remained so far a neglected area. As a result, the qualitative growth of education in India has suffered a setback. India with its great human resource has the potential to be a leading knowledge power in the world. The basic necessity for achieving this goal is to design the education system of the country from the very beginning in such a manner that choices, competition and diversity lead to create a more solid base of human capital.

Despite decades of school improvement initiatives, many young people still do not cross the finishing line of secondary education. Thousands of young people give up on school and on themselves, or schools give up on them. The argument is that without effective support from schools, communities, and families, many at-risk students fall through and eventually drop out.

Most of the reports and research on school dropouts suggested that student engagement as the key element in students' decision to stay in or leave school. Both individual (student) and institutional (school, family, and community) factors contribute to student engagement. Therefore, important things that we need to take into account include determining, if possible, who is dropping out (i.e., girl or boy student?) why (i.e., for what reasons?), when (i.e., at what point in the student's career?) and where (i.e., from which schools?). So if we are able to figure out how best to guide each student on a path that leads to graduation then it will be perfect remedies to control school dropout.

It is alarming to see the extent of dropouts in India. For example, only 7% of the population that goes to school manages to graduate. Only 15% of those who enroll in a primary school manage to make it to high school and achieve a place in the higher education system. Many social workers have argued that the quality of teachers and their compassion towards students is an important factor in ensuring quality education as well as for reducing dropout rates at school level. The deteriorating quality of school education in most government schools, particularly during the past two decades has been a matter of great concern for both the education fraternity and parents. As an alternative, parents are sending their children to private schools. However, there is no comparative study available to conclude that the education in private schools is qualitatively superior to that in the government schools.

It has been a long going argument that poor quality of education in most government schools of India seems to be a general phenomenon today. Therefore, there has been a tendency among well to do families to get their wards admitted in affluent private schools. The affluent parents with

high income are reluctant to send their children to government schools where education is provided free of cost.

In case of Sikkim, despite all the efforts and initiatives taken by the state government and non-government organisations for improving the education system and preventing the occurrence of dropouts, the situation continues to be grim.

It is argued that the poor quality of the state-run school education system has led to demands that the state should withdraw from schooling, and that the government should only fund private initiatives or let the private sector take over schooling with public-private partnership initiatives. However, people feel that because of the unfavorable environment in government or public schools, many students feel disengaged in school often interrelated to eventual dropouts.

Therefore, dropping out of school has significant negative consequences for the individual and for society. If the nation decides to do little or nothing about high school dropouts, it may have to repay dearly in the near future. On the other hand, if it invests in dropout prevention and intervention, it can accrue enormous benefits.

### **1.3 Location of the Study Area**

The study considered the following locations/areas of Sikkim in order to understand the problem.

**Location 1 (East District):** This location included Gangtok and its adjoining urban areas for collection of data on urban dropouts and Rumtek and Ranka for collection of similar data on rural dropouts. These areas are located in East Sikkim and in the vicinity of the capital Gangtok and come under the Rumtek Martam block.

**Location 2 (West District):** This was made up of Soreng and its neighboring urban areas which were considered for the collection of urban dropouts. This area is in the subdivision of West Sikkim under the Soreng–Chakung block. For purpose of the collection of data on rural dropouts we have considered Chakung and its bordering villages. It is 7 kms away from Soreng and these areas are located in West Sikkim.

**Location 3 (North District):** Mangan and its surrounding places were considered for collecting data on urban dropouts. They fall under the Mangan block. For the collection of data on rural dropouts we have considered Upper Singhick and Dzongu. Upper Singhick is in Ringhim, Nampathang block while in case of Dzongu, it is in the Dzongu block.

**Location 4 (South Sikkim):** This location comprised of Namchi and its adjoining areas as part of the urban areas. With regard to the rural dropouts we have taken Namthang and Tarku. The respective blocks are Namthang Rateypani and Tarku.

#### **1.4 Objectives of the study**

- i. To identify the major reasons behind the phenomenon of school dropouts in Sikkim including a district-wise comparison of the occurrence of dropouts.
- ii. To compare the socio-economic conditions of dropouts in rural and urban settings as well as a district-wise perspective
- iii. To identify the functional relationship between the occurrence of dropouts and variables like parental education, per capita income, facilities in school, economic status of parents, and proportion of income spent on children's education.
- iv. To examine the relationship between social and human capital in the study area.

## CHAPTER-II

### **REVIEW OF LITERATURE AND JUSTIFICATION OF THE STUDY**

#### **2.1 Brief Literature Review on School Dropouts**

Factors related to students dropping out of school tend to fall into three categories, which are similar to the types of social capital: school-related, social-related, and family-related<sup>18</sup>. School-related factors include school size, school climate, policies, practices, location, programs, teacher quality, curriculum, absenteeism rates, and grade retention rates. Social-related factors include substance abuse, race, sex, and language<sup>19</sup>. Family-related factors include socioeconomic status, mobility, family structure, parental education, and parental involvement<sup>20</sup>.

##### School-related factors:

Bryk and Thum (1989) completed an extensive study on the effects of structural and normative features of schools on absenteeism and dropping out of school using hierarchical linear model analysis. In their absenteeism model, Bryk and Thum found that the variability among schools' absenteeism rates was in large part due to the type of school (Catholic versus Public), rather than the demographics of the students. Furthermore, they found that students from a low socioeconomic background with weak academic skills were more likely to be absent. Other qualities associated with high absenteeism included schools with higher incidences of disciplinary problems, schools where the administration reports problems with staff, schools with students who come from diverse socioeconomic backgrounds, and schools with diverse student academic experiences. On the contrary, schools that are perceived as being safe, having fair rules, emphasizing the importance of homework and grades, and perceived to have strong teachers with an interest in promoting academics were associated with having low absenteeism rates.

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<sup>18</sup> (Allensworth, 2005; Bryk & Thum, 1989; Goldschmidt & Wang, 1999; Pittman & Haughwout, 1987; Roderick, 1994).

<sup>19</sup> Bryk & Thum, 1989; Goldschmidt & Wang, 1999; Krohn, Lizotte, & Perez, 1997; Mensch & Kandel, 1988; Rumberger, 1983; Steinberg, Blinde, & Chan, 1984.

<sup>20</sup> Astone & McLanahan, 1991; Goldschmidt & Wang, 1999; Rumberger, 1983; Rumberger & Lawson, 1998; Swanson & Schneider, 1999).



Bryk and Thum (1989) also established a multi-factored model related to dropout rates. When comparing demographics to dropout rates, sex was the only factor that was significant; female students tended to drop out of school at a higher rate than expected. Low dropout rates were found in schools with a high concentration of students in academic programs who were given more homework than the average school and perceived to have a safe environment. High dropout rates were associated with schools that were socially diverse, had a variety of course offerings, and where discipline was perceived as fair. A very low correlation between school size and dropout rate ( $r = .14$ ) was found.

Pittman and Haughwout (1987) affirmed the effects of participation in school, attendance, and satisfaction with the school climate in their study, but their primary interest was in determining the influence of school size on the dropout rate. Pittman and Haughwout found that larger schools tended to have higher dropout rates ( $r = .31$ ), which was much higher than the correlation found in the Bryk and Thum study. Furthermore, they concluded that larger schools “appear to produce a less positive social environment, less social integration, and less identity with the school” (p. 343). They indicated that an increase of 400 students is associated with a 1% increase in the school’s dropout rate.

Roderick (1994) investigated the effect of grade retention on the tendency for students to drop out of school. She examined the interaction effects of age, school performance, and timing of retention with grade retention on the tendency to leave school early. Students, regardless of age, who were retained, were three times more likely to drop out of school than their non retained counterparts. Students who were retained prior to the seventh grade for performance reasons were significantly more likely to drop out than those who were never retained. Roderick found that students who were overage due to late school entering or grade retention were more likely to disengage from school and drop out or have attendance problems. She cited attendance problems as a factor for grade retention.

Allensworth (2005) studied the effects of high stakes testing retention policies on high school dropout rates. Using matched-pairs tests and hierarchical generalized linear models to compare retention rates before and after enacting a retention policy in Chicago, Allensworth found that the enactment of the policy resulted in a 7% increase in eighth grade retention. However, contrary to Roderick’s findings, Allensworth found that the dropout rates did not increase statistically after the retention policy was put into place. Her conclusion was that implementation

of grade promotion based on the results of high stakes tests increases achievement, but does not increase dropout rates.

Goldschmidt and Wang (1999) assessed multiple factors related to dropout rates. They found that private high schools had significantly lower dropout rates than public high schools. While the location of the school (urban, suburban, or rural) had no effect on dropout rates, the average socioeconomic status of the community and the average level of education in the community were found to significantly increase the odds that a student would drop out of school. With respect to school policy and practice, Goldschmidt and Wang found that the number of students retained and student referrals were strongly correlated with the dropout rate. Interestingly, middle schools with diverse student bodies had higher dropout rates, but not so with high schools. Finally, school attendance was a strong indicator of dropout rate.

*Social-related factors:*

Mensch and Kandel (1988) examined the extent to which drug use contributes to dropping out of school. Mensch and Kandel used data from the National Longitudinal Study of Young Adults for their research and defined a dropout as an event dropout. They found that dropouts reported significantly higher rates of cigarette, marijuana, and other illicit drug usage than students who graduated from high school. In addition, they found that, for females in particular, the younger the child was when introduced to alcohol, cigarette, or drug usage, the more likely the student was to leave school early. Interestingly, dropouts who were using drugs were more likely to obtain a GED<sup>21</sup>.

Krohn, Lizotte, and Perez (1997) confirmed the findings of Mensch and Kandel (1988). Krohn et al. focused on early illegal substance use and how it contributed to transitions into adulthood that are generally thought to be negative, which they termed precocious, including dropping out of school, moving out of the parental household, teenage pregnancy, and teenage parenting. They found substance use to be significantly correlated with all precocious transitions into adulthood, except for female teenage pregnancy. They also found that the precocious transitions were correlated with drug and alcohol use later in life (Krohn et al.).

Goldschmidt and Wang (1999) identified two main student-level factors for students leaving school early. At the middle school level, race was a significant factor; African Americans were

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<sup>21</sup> . General Educational Development

significantly less likely to drop out than whites (Goldschmidt & Wang). At both the middle and high school levels, females were found to be significantly more likely to drop out than males.

Steinberg, Blinde, and Chan (1984) documented the prevalence of dropping out of school among minorities for whom English is a second language and possible causes and correlates for this phenomenon. They found that Hispanic students tend to drop out at higher rates than non-Hispanic minorities, and that non-Hispanic language minorities tend to drop out at higher rates than students whose primary language is English. In addition, they found that when socioeconomic status is held constant, Hispanic language minority students drop out at a higher rate than students from other ethnic and racial minority backgrounds. Finally, Steinberg et al. found that higher levels of grade retention and low academic achievement is characteristic of Spanish-speaking minorities at a much higher level than other language minorities.

*Family-related factors:*

Rumberger's (1983) study focused on how family background affects the tendency for students to drop out of school, and how race and sex contributes to the effect of family background. Rumberger found that "widespread differences in dropout rates among [members of all race and sex groups], particularly between whites and minorities, can be explained mostly by differences in family origins" (p. 211). The most uniform indicator across race and sex groups of dropout behavior was cultural index, or the amount of reading material in the household. Rumberger found that more reading material in the household was correlated with a lower dropout rate. Higher socioeconomic status tended to be a factor for staying in school for white students only. The tendency for all females and African American males to stay in school increased as their mothers' level of education increased, while the tendency for all males to stay in school increased as their fathers' level of education increased. Rumberger found that an increased number of siblings correlated with increased dropout rates for white students only. Living outside of the United States until age 14 had different effects based on race; dropout rates increased for Hispanics, decreased for whites, and stayed the same for African Americans. Residence location, urban, suburban, or rural location, was also found to be significantly related to dropout rates for males. High levels of educational aspirations were associated with lower dropout rates for all race and sex groups. Teenage pregnancy and marriage tended to be an indicator of early school leaving. In all cases, students with lower socioeconomic status tended to drop out at higher rates than other students.

Astone and McLanahan (1991) focused on family structure and parental practices as factors for high school completion. They found that children in families with two birth parents receive more parental encouragement and attention with respect to educational activities than children from non-intact families. In addition, Astone and McLanahan found that children from single-parent and step-parent families are more likely to exhibit signs of school disengagement than children who live with both birth parents. Finally, differences in parenting practices between non-intact and intact families were found to be insignificant with respect to dropout rates; parenting practices accounted for less than 10% of the differences in graduation rates.

Rumberger and Larson (1998) utilized the NELS 88-94 database to develop a series of models to examine the consequences of student mobility during high school. The first model examined school, family, and student characteristics resulting from mobility based on the students' mobility and dropout status in the twelfth grade. The second and third models were used to predict high school completion status based on student mobility. The results of the study showed that approximately one-fourth of all students changed schools during their high school years. Rumberger and Larson found that student mobility resulted in differing degrees of educational disengagement, including high absenteeism rates, high incidences of disciplinary referrals, and low educational expectations, which lead to a higher level of dropout behavior. Students with lower levels of access to family social capital exhibited greater negative effects of mobility. Their results supported the notion that student mobility leads to a greater tendency to drop out of school.

Swanson and Schnieder (1999) examined the effects of educational and residential mobility at all school levels on educational outcomes. In order to assess the effect of mobility on dropping out of high school, Swanson and Schnieder also utilized the NELS 88-94 database and logistic regression modeling and the event dropout definition. They found that higher numbers of school changes and residential movements prior to eighth grade were significantly associated with dropping out of school (Swanson & Schneider). However, if the students are able to remain in high school until the tenth grade, they are significantly less likely to drop out of school (Swanson & Schneider). Swanson and Schneider found that students who have early academic problems and move soon after these problems are identified have only a 20% chance of dropping out of school, but students who do not move are 70% more likely to drop out of school. Swanson and Schneider concluded that "the period immediately following a school change is a particularly

critical time during which the impact of the transition on a student's long-term academic success may be determined".

Many school-related factors for high school dropout tendencies have been reported in the literature. Bryk and Thum (1989) conclude that low absenteeism and dropout rates are associated with small, orderly school environments where behavior problems are dealt with in a prompt, effective manner and all students are engaged in learning. Pittman and Haughwout (1987) found a higher correlation with the size of high schools and the dropout rate than did Bryk and Thum (1989), which was odd considering that they both used the HSB database. Roderick (1994) and Allensworth (2005) both studied the effects of retention policies on the dropout rate and found contrasting results. However, the more recent Allensworth study was focused on a more specific case. Further research could be done to compare the effects of retention policies requiring remediation to improve academic achievement, such as those based on high stakes testing, versus retention policies that merely require students to retake those courses they failed. Finally, the Goldschmidt and Wang (1999) study provided a clear correlation between school attendance and dropout rate.

Social-related factors focus on deviant behaviors and effects of being a racial or language minority. Research from Mensch and Kandel (1988) seemed to indicate that drug use prevention, or delaying the onset of deviant activities involving drugs or alcohol, might increase the probability of high school graduation. Krohn et al. (1997) supported Mensch and Kandel's research, but also assessed other deviant behaviors. The precocious transitions analyzed by Krohn et al. may also be factors in and of themselves that may lead to leaving school early. Goldschmidt and Wang's (1999) finding that females are significantly more likely to drop out of school may be directly related to those reasons found by Krohn et al. In particular, female dropout rates may be higher due to teenage pregnancy and teenage family situations. Many of the factors identified by Bryk and Thum (1989) associated with high absenteeism and dropout rates fall into the category of social-related factors, which supports the findings of Goldschmidt and Wang. They found that schools with high racial diversity tend to have high absenteeism and high dropout rates and that female students tend to drop out at a higher rate than male students. The review of literature presented by Steinberg et al. (1984) leaves little doubt that being a language-minority youth is a critical risk factor for dropping out of school. This finding supports the

assertion of Bryk and Thum that schools with high racial diversity tend to have higher dropout rates.

Family-related factors associated with dropout behaviors were varied. Rumberger's (1983) findings on the effects of sex and race on the tendency for students to drop out of school is supported by the findings of Goldschmidt and Wang (1999) and Krohn et al. (1997). The findings of Goldschmidt and Wang (1999) supported the findings of Astone and McLanahan (1991) in that they found that "parent education, single-parent household, and parent checking homework have a greater effect in increasing the odds that a student drops out of high school" (p. 726). Rumberger and Larson (1998) showed that student mobility in high school increased the probability of dropout behavior. Swanson and Schneider (1999) expanded the scope of the notion of the impact of mobility on dropping out of school. They found that timing and amount of residential and educational mobility have a profound effect on a student's tendency to drop out of school.

## **2.2 Brief Literature on Social and Human Capital**

The definition of social capital is itself problematic. It owes its prominence mainly to the work of Robert Putnam in political science (1993, 1996), James Coleman in educational sociology (1988), and Francis Fukuyama in economic history and sociology (1996), as well as to the active patronage of the World Bank (Narayan and Pritchett 1997). Its origins go back well beyond these contemporary scholars, however; clear lines of descent have been traced back to classic authors such as Adam Smith and Montesquieu (Sturges 1997, Woolcock 1998, Schuller et al. 2000). For the majority of writers, it is defined in terms of networks, norms and trust, and the way these allow agents and institutions to be more effective in achieving common objectives. The most common measures of social capital look at participation in various forms of civic engagement, such as membership of voluntary associations, churches or political parties, or at levels of expressed trust in other people. In terms of economic interpretations greater emphasis is given to the institutions and rules governing economic transactions, at micro and macro levels. Social capital has been deployed to explain a wide range of social phenomena, including general economic performance, levels of crime and disorder, immigrant employment and health trends. Despite some ambiguity, social capital is generally understood as a matter of relationships, as a property of groups rather than the property of individuals.

Human capital includes the skills and knowledge we gather in formal and informal learning. Social capital, built through meaningful interactions between people, facilitates the learning and use of these skills and knowledge. It therefore promotes active and sustainable learning. In this way social capital is generated through the creation of human capital. According to Steger (2002), a part of consumption is utilised for the development of human capital in the form of education and health. In turn, this will raise the productivity of labour, thus encouraging increase in output which benefits society.

Lucas (1988) treats social capital as the externality of human capital. So the key distinction between human and social capital is that the former focuses on individual agents, and the latter on relationships between them and the networks they form.

The first study to combine the fields of social capital theory and dropout research was carried out by James Coleman in 1988. Coleman (1988) identified a correlation between the level of social capital possessed by a student and the tendency to drop out of school. Since 1988, studies have added to the definition of social capital theory as it relates to dropouts.<sup>22</sup> Other studies combining the fields of social capital theory and dropout research typically center around three areas: family social capital (Hofferth et al., 1998), school social capital (Croninger & Lee, 2001), community social capital (Crowder & South, 2003), and a combination of types of social capital (Bowen, Bowen, & Ware, 2002; Furstenburg & Hughes, 1995; Israel & Beaulieu, 2004; Smith, Beaulieu, & Israel, 1992). There is another body of literature related to social capital and dropouts in minority communities (Gibson & Bijenez, 2002; Qian & Blair, 1999; White & Glick, 2000; Yan, 1999; Zambrana & Zoppi, 2002). In this section, each of the studies on social capital theory and dropouts will be examined individually, except for the literature related to minorities, which will be analyzed as a whole body. Coleman (1988) defined the term “social capital” and introduced the concept to the field of education. He used his definition in conjunction with an analysis of data from the HSB database to examine how a lack of social capital may be related to the tendency to drop out of high school. The purpose of Coleman’s (1988) study was to define social capital and to provide a concrete example of social capital in the field of education, which was the relationship between social capital and dropout rates.

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<sup>22</sup> (Carbonaro, 1998; McNeal, 1999; Teachman et al., 1996; Teachman et al., 1997).

Coleman (1988) used his study to establish a relationship between social capital and high school dropout rates. Coleman compared percentages of different measures of social capital and the dropout rates associated with each category. He used a logistic regression model for his analysis of the data. Coleman used a random sample of 4000 public school students chosen from the HSB database to assess the relationship between family structure and the high school dropout rate. He developed several conclusions about these two variables based on the logistic regression model he established. First, Coleman concluded that students living with one parent are more likely to drop out of school than students living with two parents. Second, he concluded that as the number of siblings a student has increases, the amount of contact a student has with a parent decreases and the likelihood that a student will drop out of high school will increase for each additional sibling. Third, Coleman found that students who have mothers who expect them to go to college are more likely to complete school than those who have mothers with no expectations of college attendance. Finally, Coleman combined traits associated with family structure and found that the likelihood of a student completing school will decrease by about 12.5% when a student only has one parent and multiple siblings and by about 22.5% when all three negative family structure factors (single-parent, multiple siblings, and no maternal college attendance expectations) are present.

Coleman (1988) also found that moving from one geographic location to another correlates with the likelihood that a child will drop out of school. If the child moves to a location resulting in a loss of intergenerational closure, there is a loss of social capital. In this instance, Coleman concluded that the dropout rate is related to the number of times the family moves. Coleman (1988) used many of his findings related to dropout rates in Catholic schools to establish a relationship between the existence of increased levels of social capital and a decrease in dropout rate. For Coleman, information related to the dropout rate for religious schools provided support for his idea that social capital within the community provides strong support for students to stay in school.

One of the ways to generating social capital is through the creation of human capital. According to Steger (200), a part of consumption is utilised for the development of human capital in the form of education and health. In turn it will raise the productivity of labour, thus encouraging increased output. So Lucas (1988) treats social capitals as the externality of human capital.



### **2.3 Research Gap and Justification of the study**

As we have seen that there is hardly any significant amount of research on school dropouts in India more specifically in Sikkim. It is relatively a new area of concern in Sikkim. After reviewing the literature, it was felt that there is a lot of scope for studying the occurrence of school dropouts in Sikkim. The issue of school dropouts has been rising which can widely affects the educational career of children in Sikkim.

This study seeks to consider the dropout scenario of Sikkim in terms of both individual dropouts as well as their relations with family members and also the effect on society as a whole. For this purpose all four districts of Sikkim has been selected and attempts have been made to analyse the variations in trends across districts, if any. Though the literacy rate of Sikkim is 82.28%<sup>23</sup>, yet the number of school dropouts in Sikkim is still considerable<sup>24</sup>. Hence the aim of the study is to explore untouched possibilities and hidden facts which are perhaps responsible for school dropouts in Sikkim.

The main purpose of the study is to focus on the circumstances of the school dropouts themselves and to see how socio-economic factors are responsible for the same. The study aims to understand their actual conditions, the motivations behind their decision to drop out and the consequences thereof.

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<sup>23</sup> 11<sup>th</sup> Five Year Plan 2011

<sup>24</sup> . Education Statistics 2009-10

## **2.4 Plan of the Work**

Chapter-I: Introductory View

Chapter-II: Literature Review and the Justification of the Study

Chapter-III: Database and Methodology

Chapter-IV: An Overview of the Study Area

Chapter-V: Result and Discussions

Chapter-VI: Comparative Analysis of the Study

Chapter-VII: Conclusive Observation and Policy Prescription

Bibliography

## CHAPTER-III

### **DATABASE AND METHODOLOGY**

#### **3.1 Sampling Design**

The study has covered all four districts of Sikkim. In each area the ultimate stage units has been chosen on the basis of multistage sampling technique for the collection of dropout data in all four districts by including both rural and urban areas.

#### MULTI-STAGE SAMPLING:

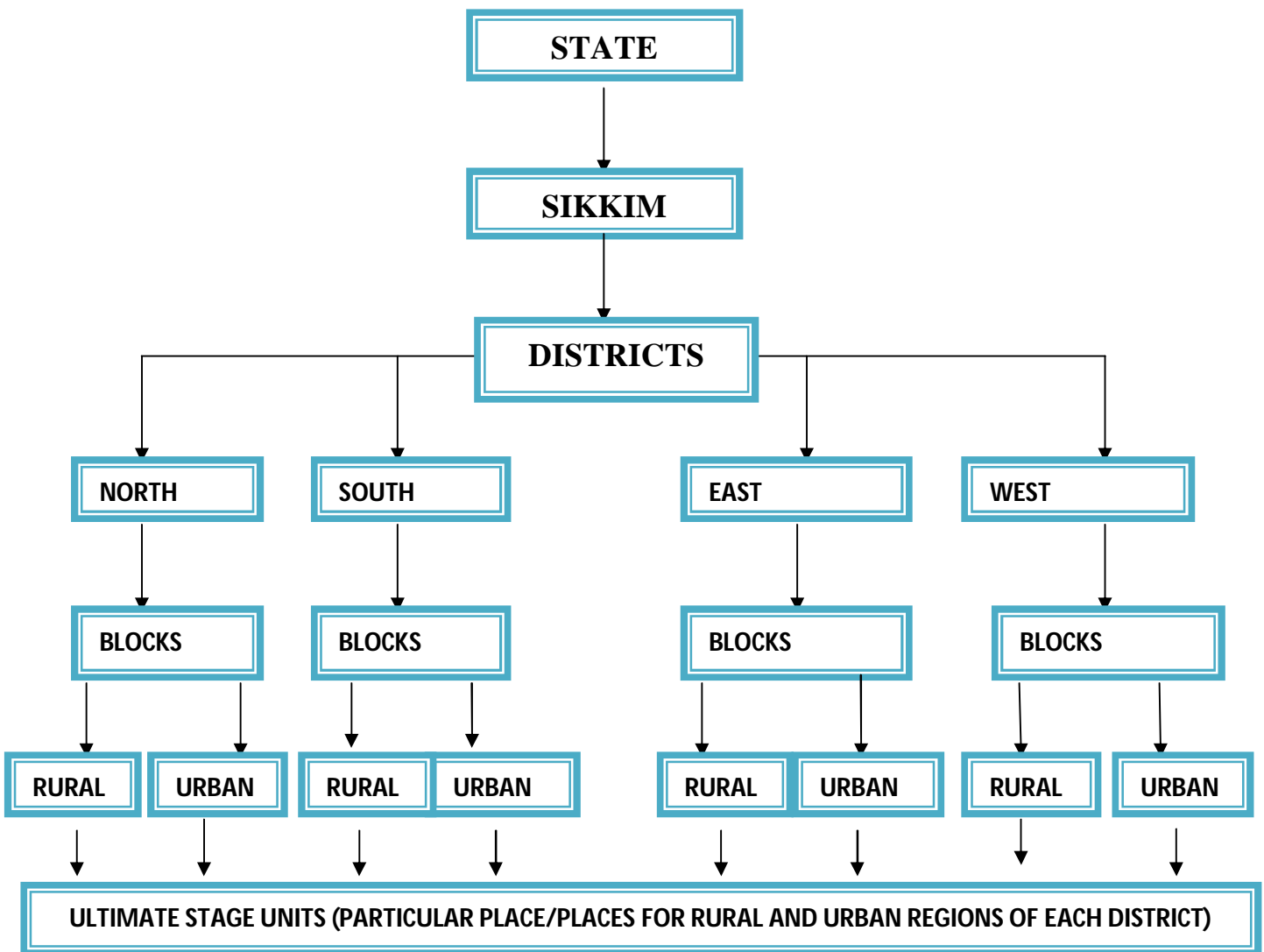


Figure 3.1: Multi-Stage Sampling Method.

Multistage sampling is a complex form of cluster sampling. Cluster sampling is a type of sampling which involves dividing the population into groups (or clusters). Then one or more

clusters are chosen at random and everyone within the chosen cluster is sampled. Using all the sample elements in all the selected clusters may be prohibitively expensive or unnecessary. Under these circumstances, multistage cluster sampling becomes useful. The population is first divided into a large number of groups, called first stage units.

**Table 3.1: Sampling Design of Study Area.**

<b>Location No</b>	<b>Block: 1. Rural 2. Urban</b>	<b>Types of School Dropouts</b>	<b>Sample Size</b>	<b>Types of Sampling Method (s)</b>
<b>Location 1 ( North )</b>	<b>1. (a) Dzongu (b) Ringsing Namparpang</b>	<b>Rural</b>	<b>30</b>	<b>(a) Multi- Stage Sampling (b) Convenience Sampling (c) Purposive Sampling</b>
	<b>2. (a) Mangan</b>	<b>Urban</b>	<b>30</b>	<b>(d) Multi- Stage Sampling (e) Convenience Sampling (f) Purposive Sampling</b>
<b>Location 2 (South )</b>	<b>1. (a) Namthang Rateypani (b) Temi- Tarku</b>	<b>Rural</b>	<b>30</b>	<b>(g) Multi- Stage Sampling (h) Convenience Sampling (i) Purposive Sampling</b>
	<b>2 (a) Namchi</b>	<b>Urban</b>	<b>30</b>	<b>(j) Multi- Stage Sampling (k) Convenience Sampling (l) Purposive Sampling</b>
<b>Location 3 ( East )</b>	<b>1. Rural (a) Rumtek- Martam (b) Ranka</b>	<b>Rural</b>	<b>30</b>	<b>(m) Multi- Stage Sampling (n) Convenience Sampling (o) Purposive Sampling</b>
	<b>2. Urban (a) Gangtok (b) Tadong</b>	<b>Urban</b>	<b>30</b>	<b>(p) Multi- Stage Sampling (q) Convenience Sampling (r) Purposive Sampling</b>
<b>Location 4 ( West )</b>	<b>1. (a) Chakung</b>	<b>Rural</b>	<b>30</b>	<b>(s) Multi- Stage Sampling (t) Convenience Sampling (u) Purposive Sampling</b>
	<b>2 ( a) Soreng</b>	<b>Urban</b>	<b>30</b>	<b>(v) Multi- Stage Sampling (w) Convenience Sampling (x) Purposive Sampling</b>

These first stage units are again divided into smaller units, called second stage units. The second stage units are divided into third stage units, and so on, until we reach the ultimate stage units. First we select at random a number of first stage units. Then from each of the selected first stage units we select a number of second stage units at random. The process is carried from one stage

to another until we get the ultimate units. In our case we have considered and covered one rural and one urban area from each district of Sikkim for the collection of data. Finally the samples are collected on the basis of convenience and purposive sampling methods. The total sample size being sampled from the four districts of Sikkim is 240 out of which 60 will be the individual target from each district of Sikkim comprising of 30 from the rural areas and 30 from the urban areas. The data was collected on the different age groups viz., 5-35 (dropouts), 35-55 (parents of dropouts) and their different educational levels (primary, secondary and higher secondary). We have also considered some special cases like livelihood schools, taxi drivers etc.

### **3.2 Data Collection**

In our study we have used both micro-level and macro-level data. For collection of primary data we have used pre-structured questionnaire method directed towards the stakeholders with regard to school dropouts in Sikkim. In addition the various secondary sources like government reports, school reports of government and private schools, literature from monasteries etc. were utilised for the study. The methods for collecting primary data include the following:

1. Household level survey:

For household survey we have utilised pre-structured questionnaires to collect the information regarding the dropout phenomenon. The survey covered students, dropouts and their respective parents. We have asked many questions regarding the main causes, controlling measures and main reasons behind the occurrence of school dropouts. We also interacted with the parents of the dropouts regarding their perception of the same.

2. School Level Survey:

In the school level survey, we have visited some of the government, private and livelihood schools to know the teachers' perception regarding students and their decision to drop out. We have framed a questionnaire in order to gather data on the enrolment ratio, dropout ratio, attendance ratio, retention ratio etc on an average annually.

### 3.3 Data Analysis

In our study we have utilised statistical and econometric tools in pursuit of the objectives provided in the study. The analytical tools that we have used include the following:

A. The Gini coefficient:

It is utilised for the purpose of measuring the income inequality among the rural and urban respondents as well as the respondents of all four districts of Sikkim. The Gini-Coefficient model is given by

$$G = \frac{1}{n^2 \mu} \sum_{x_i > x_j} (x_i - x_j) f_i f_j \dots\dots\dots(1)$$

In case of a set of n values of X say  $x_1, x_2, x_3, \dots, x_n$  with frequencies  $f_1, f_2, f_3, \dots, f_n$ , where,  $\mu$  is the mean of the X values and  $x_1, x_2, \dots, x_n$  are the per capita income of the respondents with the corresponding frequencies  $f_1, f_2, \dots, f_n$  of the distribution.

B. Logit Model:

The logit model is utilised in order to capture the main causes of dropout behavior. Here Logit is simply an odds ratio in favor of the dropping out of a student. In other words, it is simply an odd ratio in favor of student has been dropout or not, or it's a simply ratio of probability between the students who have dropped out and those who have not.

Symbolically given by,

$$Li = \ln(P_i / 1 - P_i) = Z_i \dots\dots\dots(2)$$

Where  $Z_i = \beta_1 + \beta_2 X_i$

Logit regression is used to understand the impact of the concerned explanatory variables on the dependent binary or dichotomous variable. Hence the response variable or regressand can take only two values say 1, if a student has been dropped out of class and 0 if a student has not been dropped out of class or simply Yes/ No in terms of dropouts.

In our case we have considered independent variables like per capita income (PCI), economic status of parents (ESP), parental education (PE), proportion of income spent on children's education (PISCE), facilities in school (FS), and distance of school (DoS) etc.

In our present study, Logit model has been given as,

$$ScDp_{ij}^{25} = \beta_1 + \beta_2 PCI_i + \beta_3 ESP_i + \beta_4 PE_i + \beta_5 PISCE_i + \beta_6 FS_i + \beta_7 DoS_i + \varepsilon_i \dots \dots \dots (3)$$

$$ScDp_i = \beta_0 + \beta_2 PCI_i + \beta_3 ESP_i + \beta_4 PE_i + \beta_5 PISCE_i + \beta_6 FS_i + \beta_7 DoS_i + \beta_8 DNorth_i + \beta_9 DWest_i + \beta_{10} DSouth_i + \varepsilon_i \dots \dots \dots (4)$$

$$ScDp_i = \alpha + \beta_2 PCI_i + \beta_3 ESP_i + \beta_4 PE_i + \beta_5 PISCE_i + \beta_6 FS_i + \beta_7 DoS_i + \beta_8 DRural_i + \varepsilon_i \dots \dots \dots (5)$$

Where,  $ScDp_{ij} = 1$  if respondent has been dropped out from School  
 $= 0$  otherwise

- PCI = Per capita income of a family
- ESP= Economic status of parents
- PE=Parental education
- PISCE=Proportion of income spend on children's education
- FS=Facilities in school
- DoS= Distance of School
- $\beta_0$ = Comparing category (East)
- $\alpha$  = Comparing category (Urban)
- DNorth= Dummy for North
- DWest= Dummy for West
- DSouth= Dummy for South
- Drural= Dummy for Rural
- $\varepsilon_i$  = error term which capture error in the model

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<sup>25</sup> j = 1,2,3,4; j indicates district-1 for North, 2 for South, etc. &  
j = 1,2,; j indicates region-1 for Rural, 2 for Urban.

Equation 3 represents the relationship of the dependent variable i.e. school dropouts with the different explanatory variables for the individual samples, i.e., different districts of Sikkim.

Equation 4 represents the relationship of the dependent variable i.e. school dropouts with the different explanatory variables for the combined samples, i.e., the whole of Sikkim.

Equation 5 represents the relationship of the dependent variable i.e. school dropouts with the different explanatory variables for the individual samples, i.e., urban and rural regions of Sikkim.

### 3. Least Squares Method:

Another important method we have utilised in this study is the least square method with the help of which we intend to understand the investment in human capital for making social capital. In our study we have made Proportion of income spent on children's education is a proxy for social capital; similarly, Parental education is a proxy for human capital. Therefore we have taken social capital is the function of human capital.

Human capital includes the skills and knowledge we gather in formal and informal learning. Social capital, built through meaningful interactions between people, facilitates the learning and use of these skills and knowledge. It therefore promotes active and sustainable learning. In this way social capital is generated through the creation of human capital. According to Steger (2002), a part of consumption is utilised for the development of human capital in the form of education and health.

Lucas (1988) treats social capital as the externality of human capital. So the key distinction between human and social capital is that the former focuses on individual agents, and the latter on relationships between them and the networks they form.



So the equation for the Least Square Model for current study is taken as,

$$PISCE_{ij}^{26} = \beta_1 + \beta_2 PE_i + U_i \dots \dots \dots (6)$$

$$PISCE_i = \beta_0 + \beta_1 PE_i + \beta_2 DEast_i + \beta_3 DSouth_i + \beta_4 DNorth_i + U_i \dots \dots \dots (7)$$

$$PISCE_i = \mu + \beta_2 PE_i + \beta_3 DRural_i + U_i \dots \dots \dots (8)$$

where,

PISCE= Proportionate Income Spend on Children’s Education (Social Capital)

PE= Parental Education (Human Capital)

DEast= Dummy for East,

DSouth= Dummy for South

DNorth= Dummy for North,

DRural= Dummy for Rural, and

$B_0, \mu$  = Comparing Category

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<sup>26</sup>. j = 1,2,3,4; j indicates district-1 for North, 2 for South, etc. &  
j = 1,2,; j indicates region-1 for Rural, 2 for Urban.

## CHAPTER- IV

### AN OVERVIEW OF THE STUDY AREA

#### 4.1 Brief Description of the State (Sikkim)

Sikkim is a landlocked Indian state located in Himalayan Mountains. The state is bordered by Nepal to the west, China's Tibet Autonomous Region to the north and east, and Bhutan to the east. The Indian state of West Bengal lies to the south<sup>27</sup>



Figure- 4: Map of Sikkim

Sikkim is the least populous state in India and the second-smallest state after Goa covering approximately 7,096 square km (2,740 sq mi) with 610,577<sup>[28]</sup> inhabitants as of the 2011

<sup>27</sup> "Physical Features of Sikkim", Department of Information and Public Relations, Government of Sikkim. 29 September 2005.

<sup>28</sup> Arjun Adlakha (April 1997). "Population Trends: India". *International brief*. U.S. Department of Commerce. p. 5. Retrieved 4 November 2008.

census<sup>29</sup>. Sikkim is the only state in India with an ethnic Nepali majority. Sikkim has 11 official languages: Nepali, Bhutia, Lepcha, Tamang, Limbu, Newari, Rai, Gurung, Magar, Sunwar and English<sup>30</sup>

Sikkim's economy is largely dependent on agriculture and tourism, and as of 2012 the state has the third-smallest GDP among Indian States<sup>31</sup>, although it is also among the fastest-growing. Sikkim has four districts viz. - East, West, North and South Sikkim. The district capitals are Gangtok, Gyalshing, Mangan and Namchi respectively. These four districts are further divided into subdivisions; Pakyong and Rongli are the subdivisions of the East district, Soreng is the subdivision of the West district, Chungthang is the subdivision of the North district and Ravongla is the subdivision of the South district.

In our study we have considered all four districts of Sikkim for collecting the data on school dropouts, where we have collected a sample of 30 each from rural and urban areas from each district of Sikkim.

#### **4.2 Description of the Study Area in the North District of Sikkim**

In North Sikkim we have covered Mangan and its surrounding areas for urban data on school dropouts. It is located in the northern part of the state. It is the seventh least populous district in the country with a population of 43,354. The North district has a total area of about 4226 km<sup>32</sup>.

Mangan (मंगन) is the district headquarters of North Sikkim. The district is the largest of the four districts of Sikkim. Most of the people of the district reside near Mangan. The rate of literacy among the inhabitants of the district is 54%. It is the district headquarters of North Sikkim. Mangan is situated 65 kms away from the capital Gangtok. The town is located at a height of 3950 feet. Its population growth rate over the decade 2001-2011 was 5.66%. North Sikkim has a sex ratio of 769 females for every 1000 males and a literacy rate of 77.39%<sup>33</sup>. The people are mainly of Nepali descent. Other ethnic groups include the Lepcha and Bhutia communities.

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<sup>29</sup> "2011 Census reference tables – total population". Government of India. 2011. Retrieved 16 July 2013.

<sup>30</sup> Sonam Wangdi (13 October 2009). "Nepali Language in the Eighth Schedule of Constitution". Retrieved 10 March 2010.

<sup>31</sup> "State-Wise GDP", Unidow.com. 2012. Retrieved 1 July 2013.

<sup>32</sup> (FYP-2011).

<sup>33</sup> "District Census 2011", Census2011.co.in. 2011. Retrieved 2011-09-30.

Nepali is the most widely spoken language in the district. The North district has two subdivisions viz., - Mangan and Chungthang. Mangan is known as the cardamom capital of the world. Cardamom is an important cash crop of this area. Other major crops cultivated here include corn and paddy. Apart from these crops, vegetables like potato, apple and cabbage are also cultivated in these parts of North Sikkim. North Sikkim is the largest district of Sikkim in terms of area.

The town of Mangan lies in the geographic south of the district. After the opening up of the district, Mangan has witnessed a spurt in its economy, mostly due to tourism. The town opens up the Tibetan Plateau. Mangan also serves the towns of Lachung, Chungthang and Lachen in the far north. Owing to its elevation, the town enjoys a temperate climate.

As of 2001 India census<sup>34</sup>, Mangan had a population of 1248. Males constitute 62% of the population and females 38%. Mangan has an average literacy rate of 69%, higher than the national average of 59.5%: male literacy is 72% while female literacy is 63%. In Mangan, 14% of the population is under 6 years of age.

For rural data on school dropouts we have visited Upper Singhik and Dzongu and its adjoining villages, which have identical features and well structured village in the north district. And for Urban, Mangan is the Block whereas Upper Singhick is Ringsing Namparpang block and for Dzongu, it's Dzongu only.<sup>35</sup>

### **4.3 Description of the Study Area in the South District of Sikkim**

Moving to the South District, the district of South Sikkim ranks second in terms of population. Its population is denser than that of East Sikkim, and it is the most populous district after East District. However South Sikkim is a smaller district than East Sikkim. The total area of South Sikkim is 750 sq kms and with its population (as of 2011) of 1,46,742. Males constitute 52% of the population and females 48%. Namchi has an average literacy rate of 78%, which is higher than the national average of 59.5%. Male literacy is 81%; for the females it is 73%. In Namchi,

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<sup>34</sup> "Census of India 2001: Data from the 2001 Census, including cities, villages and towns (Provisional)". Census Commission of India. Archived from the original on 2004-06-16. Retrieved 2008-11-01.

<sup>35</sup> See Map of North Sikkim in Appendix.

9% of the population is under 6 years of age. Most of the people of Namchi are Hindus and Buddhists. Languages spoken here are Nepali, English and Hindi.

Namchi ( नमची ) is situated at an altitude of 1,675 m (5500 feet) above sea level. It is at a distance of 78 km from Gangtok and 90 km from the town of Siliguri in West Bengal, the nearest railhead and airport. Namchi lies off the road between Melli and Jorethang. Namchi is well connected to other towns in Sikkim and West Bengal. The headquarters of the district of South Sikkim is Namchi. Namchi as a town is not very big in size. It is gradually becoming one of the most popular tourist destinations in South Sikkim, thanks to the efforts of the state government. The district is slowly improving its infrastructure to cater to the needs of the tourists. The district has two subdivisions namely Namchi and Ravangla. Major urban centres include Namchi, Ravangla, Jorethang and Malli. The district has a population density of 196 inhabitants per square kilometer. Its population growth rate over the decade 2001-2011 was 11.57%. It has a sex ratio of 914 females for every 1000 males and a literacy rate of 82.06%<sup>36</sup>. The people are mainly of Nepali descent. Other ethnic groups include the Lepcha and Bhutia communities. Nepali is the most widely spoken language in the district. It is the most industrialised district in the state, owing to the availability of flat land. The district is also famous for its Sikkim Tea, which is grown near Namchi.

The study was carried out in two villages in South Sikkim, viz.,- Dhamthang and Timi Tarku and its adjoining villages for the collection of rural data on school dropouts. These two villages have a natural beauty. Timi Tarku is the only tea estate in Sikkim where they do the tea cultivation. For the data on urban dropouts we have considered Namchi and Namthang.<sup>37</sup>

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<sup>36</sup> District Census 2011", Census2011.co.in. 2011. Retrieved 2011-09-30.

<sup>37</sup> . See Map of South Sikkim in Appendix

#### 4.4 Description of the Study Area in the East District of Sikkim

In case of the East District, the urban data was obtained from Gangtok and its adjoining areas. Since Gangtok is the capital of Sikkim with a total area of 954 square kilometers with the population (as of 2011) of 2, 81,293<sup>38</sup>. It is home to people of different ethnicities such as Lepchas, Bhutias and Nepalis.

Gangtok (गान्तोक) is located in the eastern Himalayan range, at an altitude of 1,650 m (5,410 ft).

This city was chosen as the location for the present study because Gangtok has a large number of schools, colleges, administrative and government offices where we can get reliable data. According to the Provisional Population Totals 2011 census of India, the population of Gangtok Municipal Corporation has been estimated to be 98,658. Males constitute 53% of the population and females 47%. The Gangtok subdivision of the East Sikkim district had a population of 281,293; Gangtok has an average literacy rate of 82.17%, which is higher than the national average of 74%: male literacy is 85.33%, while that of females is 78.68%<sup>39</sup>. Of the total urban population of Sikkim, Gangtok Municipal Corporation has a share of 55.5%. Taking the population of Gangtok into consideration, the East District has a share of 88% of the total urban population.

Ethnic Nepalis, who settled in the region during British rule<sup>40</sup>, comprise the majority of Gangtok's residents. Lepchas, who are native to the land, and Bhutias also constitute a sizeable portion of the populace. Additionally, a large number of Tibetans have migrated to the town. Migrant resident communities not native to the region include the Marwaris, who own most of the shops, the Biharis, who are mostly employed in blue collar jobs and the Bengalis.

Hinduism and Buddhism are the most significant religions in Gangtok. Gangtok also has a sizeable Christian population and a small Muslim minority.

For the data on rural dropouts, we have visited the rural places like Rumtek and Ranka which are perhaps more important for valid school dropout data. Rumtek and Ranka are two major villages which have a significant character in themselves and are a few kilometers away from Gangtok.

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<sup>38</sup> "District Census 2011". Census2011.co.in. 2011. Retrieved 2011-09-30.

<sup>39</sup> "Population of Sikkim – 2011 census results". Populationindia.com. 14 May 2011. Retrieved 28 June 2011

<sup>40</sup> "People". Department of Information and Public Relations, Government of Sikkim. Archived from the original on 22 May 2008. Retrieved 9 May 2008.

These are well developed villages where most of the people support organic mode of production or cultivation. It has well renowned tourist destination due to its unique culture and history of monasteries and traditional education.<sup>41</sup>

#### **4.5 Description of the Study Area in the West District of Sikkim**

Lastly, with regard to the West District, we have covered Soreng, a subdivision of West District and its surrounding areas for collecting the urban data on school dropouts. The total area of West Sikkim is 116 sq kms with a population (as of 2011) of 1, 36,299<sup>42</sup>. Its population growth rate over the decade 2001-2011 was 10.58%. West Sikkim is well known for housing the first capital of Sikkim, Yuksom. It served as the capital beginning in 1942 for almost 50 years until it was shifted to Rabtentse. This place is the starting point of all kinds of trekking and mountaineering activities towards the high ranges of the Kanchenjunga. Its district headquarter is Geyzing, also known as Gyalshing. West Sikkim has a sex ratio of 941 females for every 1000 males and a literacy rate of 78.69%. The people are of mainly Nepali descent. Other ethnic groups include the Lepcha and Bhutia communities. Nepali is the most widely spoken language in the district. The west district also has two subdivisions namely Gyalshing and Soreng.

Gyalshing or Geyzing is the capital of the district of West Sikkim in the Indian state of Sikkim. The town is connected to the capital Gangtok . It is also connected to the West Bengal towns of Darjeeling and Kalimpong via Jorethang. A few kilometres north is the town of Pelling. The town has a large Nepali population, and the Nepali language is the predominant language of the region. The town is situated at an altitude of about 6,500 feet (1,900 m). Near Geyzing is the ancient town of Yuksom, the ancient capital of Sikkim built in 1642.

Soreng (Nepali: सोरेङ) is a small town in West district Sikkim, India. Soreng is known for being the largest producer of vegetables, oranges and flowers in Sikkim. The inhabitants are mostly dependent on agriculture, floriculture and tourism for their livelihood. They are mostly of Nepali origin. The majority of the community follows Hindu and Buddhist beliefs while the rest are Christians. Soreng is about 2½ hours from Darjeeling and 3 hours from the capital Gangtok. The region is a major eco-tourism spot, and thousands of people visit for this purpose every year.

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<sup>41</sup> . See Map of East Sikkim in Appendix

<sup>42</sup> District Census 2011", Census2011.co.in. 2011. Retrieved 2011-09-30

It is close to Daramdin. Its major attractions include landscapes, fisheries, a good view of Mount Kangchenjunga, flora and fauna, and white river rafting in the Teesta River

For the rural viewpoint we have covered Chakung and its adjoining villages. It is 7 kms away from Soreng and these areas are located in West Sikkim. Chakung is the birth place of first chief minister L.D. Kazi<sup>43</sup>. It is a very beautiful village with innovative tourist attractions. Agriculture and business are the two main occupations largely seen among of people of Chakung. Chakung has recently turned into a small town but it is largely crowded in during the *Hart* (a designated day when maximum people gather from different villages for trading of goods) on Tuesday. Since it is a birth place of L.D. Kazi, it will not be a fault to say that Chakung is the birth place of politics in Sikkim.

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<sup>43</sup> Kazi Landup Dorgee Khangsherpa



## CHAPTER -V

### RESULTS AND DISCUSSIONS

#### 5.1 Descriptions of the Variables

**Table 5.1 Shows the variables description that we have used in our study**

<b>Sl.No</b>	<b>Variable Name</b>	<b>Descriptions of Variables</b>
1	Serialno	Serial number of the respondent
2	Dsouth	=1 if from south, 0 otherwise
3	Dwest	=1 if from west, 0 otherwise
4	Dnorth	=1 if from north, 0 otherwise
5	Deast	= 1if from east, 0 otherwise
6	Drural	= 1 if from rural, 0 otherwise
7	ScDp	School Dropouts: 1 if involved in School dropouts, otherwise 0
8	PCI	Per capita Income of Respondent
9	ESP	Economic Status of Parents
10	PE	Parental Education
11	PISCE	Proportion Income Spent on Children's Education
12	FS	Facilities in School
13	DoS	Distance from School
14	Gini	Gini- Coefficient
15	Rage	Respondent's Age
16	RMn	Respondent's Minimum Age
17	RMx	Respondent's Maximum Age
18	Mage	Age of Male Respondent
19	Fage	Age of Female Respondent
20	MDp	Male Dropout
21	FDp	Female Dropout
22	HNs	Hindu Respondent
23	BHs	Buddhist Respondent
24	CHs	Christian Respondent
25	NoRs	Number of Respondents

**Table 5.2 Descriptive Statistics on School dropouts**

<b>School Dropouts Indicator (Average)</b>	<b>Rage</b>	<b>RMn - Age</b>	<b>RMx -Age</b>	<b>Mage</b>	<b>FAge</b>	<b>MDp</b>	<b>FDp</b>	<b>DS</b>	<b>PCI</b>	<b>PE</b>	<b>HNs</b>	<b>CHs</b>	<b>BHs</b>	<b>NoRs</b>
<b>School Dropouts</b>	<b>15.87</b>	<b>10</b>	<b>22</b>	<b>13.84</b>	<b>12.23</b>	<b>58.06 (54)*</b>	<b>41.93 (39)*</b>	<b>1.91</b>	<b>5768</b>	<b>5.33 (93)*</b>	<b>52.68 (49)*</b>	<b>21.50 (27)</b>	<b>29.03 (20)</b>	<b>39% (93*)</b>
<b>No School Dropouts</b>									<b>11523</b>	<b>10.72 (147*)</b>				<b>61% (147*)</b>
<b>Total</b>														<b>240*</b>

Source: Author's calculation on primary data.

Note:\* Number of respondents.

From the table 5.2 it is apparent that the average of respondents who were not dropouts is 61 % (147 respondents) while the average of respondents who has been dropouts from school is 39 % (93 respondents). This tells us that Sikkim is walking towards the path of development and achieving progress in the fields of education.

The maximum and minimum age of respondents who have been dropped is 22 years and 10 years respectively. Therefore, average age of respondents who had been dropouts from school is 16 years (approx). The average age of male and female respondents who have been dropouts from school is 13.84 years and 12.23 years respectively. So from this we can say that the ages more specifically 14 and 12 years have the maximum chances of dropping out from school in case of male and female students, respectively.

Similarly, from the above table it is clear that religion-wise average dropouts of Hindu, Buddhist and Christian are 53%, 29% and 22 % (approx) respectively. In the above categories the number of respondents that comprises Hindu, Buddhist and Christian are 49, 27, and 20 respectively. This result elucidate that most of the school dropouts belongs from Hindu followed by Buddhist and Christian category. Generally Hindu comprises larger population in Sikkim.

Again from the above table, it is noticeable that the average number of dropouts among males and females is 58.06% and 41.93 % respectively. Thus male students are more likely to drop out from schools compared to female students.

The study also tells us that average distance from school for students in Sikkim is about 1.91 Km or 2 km, which tells that it is not too long for students to go to school. This may be the result of government initiatives.

Again the PCI for a family with dropouts and the family without dropouts are Rs. 5768.34 and 11523.41 on an average. The PE of dropout students is 5.33 (approximately around or up to class (V) while the PE of students who have not dropped out is 10.72 (approximately around or up to class XI).

**Table 5.2a: Descriptive Statistic on Socio-Economic reason for School Dropouts in Sikkim**

Reason Related to School Dropout	Males			Females			Total
	Lepcha	Bhutia	Nepali*	Lepcha	Bhutia	Nepali*	
<b>School Related:</b>							
Poor Academic Performance		3	3	2			8
Dislike School's Environments					2	2	4
Distance of School							
<b>Economic Related:</b>							
Desired to Work			3		2	3	8
Financial Constraint	3	5	9	2		5	24
Home Responsibilities	2	3	9	2	2	2	20
<b>Personal Related:</b>							
Did not like to Study	2	3	5	2	3	4	19
Pregnancy and Marriage					2	4	6
Peer Influence			4				4
<b>Total</b>	<b>7</b>	<b>14</b>	<b>33</b>	<b>8</b>	<b>11</b>	<b>20</b>	<b>93<sup>#</sup></b>

Note: \* All the ethnic groups such as Rai, Thapa, Tamang, Chettri, etc. Except Lepcha and Bhutia.  
<sup>#</sup> Total number of dropout's respondents in collected sample.  
Source: Author calculation on Primary data.

From the above table it is apparent that members of Nepali community are much more likely to drop out of school than that of Bhutia and Lepcha it is due to the facts that Nepali community comprises of different castes and also population contribution is higher unlike Bhutia and Lepcha community. It is also clear that male students are more likely to drop out from school than female students.

In our research literature, we have found a great number of factors related with family conditions and structures have been identified as a major drawback for the chances of school dropouts. And the most important is socio-economic status. Several studies have found that dropout rates are

higher for students from families of low socioeconomic status, no matter what particular factors are used to measure socioeconomic status (e.g. Rumberger, 1983).

School-related factors associated with dropping out have received not much attention unlike other factors which is seen clear from above table. It is fairly documented that poor academic performance in school, such as grade retention, inability to understand, course difficulty and even a favorable school environment plays a crucial role associated with dropping out of children (Bryk and Thum (1989), Pittman and Haughwout (1987), Roderick (1994), Allensworth (2005), Goldschmidt and Wang (1999)). Most research on school-related factors has focused on students' behaviors and performance in school. If little attention has been given to increase the facilities in schools could have been way to minimise the students' decisions to drop out. Yet many dropouts attend schools with very poor facilities and inadequate teaching staffs, conditions that could affect their performance in school and ultimately their decision to leave (Fine, 1986).

Economic factors also influence students' decisions to leave school. It is clear from the above table that most of the dropouts' are associated with the economic factor such as financial constraint, home's responsibility and desire to work. About 50% of dropouts have reported that they left school because they wanted to or felt they had to work to help out their families and some vicious financial constraint in the family which is documented in above table (Table 5.1a). In Sikkim most of the school dropouts reported that economic problem is the main factor which push them in the direction towards school dropouts (Rumberger's 1983).

Finally, many dropouts' reported that personal factors like no interest in study, early marriage and pregnancy, and influence of peer's groups are the main reasons that they leave school. (Ekstrom et.al 1986, Rumberger, 1983). In Sikkim, we have the shortage of counseling and orientation programme in schools which aware them to take such steps.

Therefore, it is clear from the above table, that economic factor and personal factor plays a crucial role for causing school dropouts in Sikkim. A good imperative policies and effective intervention in this particular field could make some improvement and enhance the quality of education and will help the students to retain in school.

However, most of the evidence supports the concept that dropping out of school has been remarks as negative individual and social consequences. Individual dropouts suffer because

many have difficulty finding steady, well-paying jobs not just when they first leave school but over their entire lifetimes. Society suffers as well because unemployment and lost earnings lower tax revenues and increase demands on social services. But the consequences of dropping out go beyond simple economic losses, no matter how large they may be. However, as Levin documented, high school dropouts are more likely to require a wide range of social services, including welfare, medical assistance, and unemployment assistance. They are also more likely to engage in crime, have poorer health, have lower rates of intergenerational mobility, and lower rates of political participation.

### 5.3 Results and Analysis of Socio-Economic Conditions of the Respondents of the Study Area in terms of Gini-Coefficient.

**Table 5.3: Gini-Coefficient Estimates Income Inequality of Sikkim**

<b>LOCATION</b>	<b>VALUE OF GINI-COEFFICIENT</b>
<b>RURAL</b>	<b>0.14</b>
<b>URBAN</b>	<b>0.13</b>
<b>EAST</b>	<b>0.22</b>
<b>WEST</b>	<b>0.21</b>
<b>NORTH</b>	<b>0.17</b>
<b>SOUTH</b>	<b>0.21</b>

Source: Author's Calculation on Primary Data

The income of a family is the most important way of getting an idea about the socio-economic condition of the people. Income can be connected with several other parameters like savings and income, educational level, assets or livestock holdings, occupational status and general living conditions. Hence by analysing the income levels of the surveyed respondents we can get an overall idea about the socio-economic structures they live in.

The lower the income inequality the greater will be the homogeneity among the respondents; otherwise there may be diverse viewpoints regarding the occurrence of dropouts. For this reason we have studied the socio-economic conditions using the Gini-Coefficient. We do so by examining whether there are any variations across districts or between rural and urban areas.

The values of the Gini coefficient  $G$  for rural and urban areas are 0.14 and 0.13 respectively. This study suggests that there is no such strong income inequality between these two regions. This can be due to government initiatives for providing proper infrastructure in rural areas, job orientation programmes, and employment opportunities in the private sector, all of which have enabled the rural folk to raise their standard of living. However, if we examine the value of  $G$  carefully then the income inequality is comparatively higher in case of rural areas, suggesting the variation of income earning in rural areas of Sikkim.

The study also estimated the income inequality among the four districts of Sikkim, the values of  $G$  for East, West, North and South being 0.22, 0.21, 0.17, and 0.21 respectively. Thus the values are more or less similar except for East Sikkim which has relatively higher income inequality compared to the remaining districts. The possible reason may be heterogeneity in the occupation of people of East Sikkim.

#### 5.4 Results and Analysis of the Causes of Dropouts in terms of Logit Model.

$$ScDp_{ij} = \beta_0 + \beta_2 PCI_i + \beta_3 ESP_i + \beta_4 PE_i + \beta_5 PISCE_i + \beta_6 FS_i + \beta_7 DoS_i + \varepsilon_i \dots \dots \dots (3)$$

$$ScDp_i = \beta_0 + \beta_2 PCI_i + \beta_3 ESP_i + \beta_4 PE_i + \beta_5 PISCE_i + \beta_6 FS_i + \beta_7 DoS_i + \beta_8 DNorth_i + \beta_9 DWest_i + \beta_{10} DSouth_i + \varepsilon_i \dots \dots \dots (4)$$

$$ScDp_i = \alpha + \beta_2 PCI_i + \beta_3 ESP_i + \beta_4 PE_i + \beta_5 PISCE_i + \beta_6 FS_i + \beta_7 DoS_i + \beta_8 DRural_i + \varepsilon_i \dots \dots \dots (5)$$

**Table 5:4 Logit Estimates of School dropouts**

Explanatory variables	Estimated Coefficients							
	COMBINED	DRURAL	SOUTH	NORTH	EAST	WEST	RURAL	URBAN
PCI	-0.0025*** (-5.478)	-0.0002*** (-2.962)	-0.002*** (-2.599)	-0.001*** (-2.866)	-0.001*** (-2.773)	-0.002*** (-3.143)	- 0.002*** (-2.064)	-0.001*** (-2.071)
ESP	-0.1037 (-0.177)	0.162 (0.447)	0.0970 (0.067)	-1.246** (-1.967)	-0.1906 (-0.1741)	1.965 (1.729)	0.2668 (0.520)	0.0370 (0.0672)
PE	-0.307*** (-2.950)	-0.220*** (-3.87)	0.0400 (0.180)	0.0896 (-1.167)	-0.2534 (0.077)	0.071 (0.439)	-0.165** (-1.963)	-0.244*** (-2.875)
PISCE	-4.024** (-1.859)	-5.268*** (-3.314)	-6.224** (-2.928)	-0.0401** (-1.911)	-0.970* (-1.975)	-1.570** (-2.328)	-0.723** (-2.989)	-4.905** (-2.152)
FS	-0.4531 (-0.415)	-0.723 (-1.476)	0.2825 (0.0987)	-1.0126 (-0.899)	-0.6698 (-0.3461)	-0.358** (-1.782)	-0.624 (-0.752)	0.0631 (-1.661)
DS	-0.469 (-1.880)	0.046 (0.548)	0.016 (0.0449)	0.352 (0.719)	-0.088 (-0.2815)	-0.173 (-0.512)	0.116 (0.670)	0.068 (0.677)
Dnorth	3.554*** (3.464)							
Dwest	4.617*** (3.791)							
Dsouth	2.282** (2.489)							
Drural		0.666** (1.974)						
Constant (C)	10.834*** (4.546)	3.329*** (4.475)	7.028* (1.660)	8.350*** (3.165)	6.185*** (2.361)	8.982*** (2.858)	3.472*** (2.848)	3.547*** (3.081)
$\beta_0, \alpha$	10.834*** (4.546)	3.329*** (4.475)						
Observations	240	240	60	60	60	60	120	120
Mc Fadden R <sup>2</sup>	0.712	0.703	0.717	0.593	0.500	0.545	0.234	0.189
LR statistic: Prob (LR statistic):	227.495*** 0.000	66.116*** 0.000	57.947*** 0.000	48.340*** 0.000	35.788*** 0.000	45.189*** 0.000	38.644** * 0.000	29.848*** 0.000
<b>Note: ***, ** and * indicates the significance at 1%, 5% and 10% level respectively. Figures within the brackets represent the z-statistics.</b>								

Note:  $\beta_0$  is the intercept term of eqn 4 and  $\alpha$  is the intercept term of eqn 5, or (benchmark intercept).



Table 5.4 shows the estimated coefficients for equations (3), (4) and (5) for Sikkim as a whole and for urban and rural areas. Column 3, 4, 5, 6, 7 and 8 shows the estimated coefficients estimated using equation (3). Column 1 shows the estimated coefficients from equation (4) while Column 2 shows the estimated coefficients from equation (5). The estimated coefficients of the Logit model show the direction of the relationship between the dependent and the independent or explanatory variables.

From these results for the estimated coefficients of the combined sample, we get to know that variables like per capita income (PCI), parental education (PE), proportionate income spent on children's education (PISCE) and facilities in school (FS) are found to be significant whereas other variables like economic status of parents (ESP) and distance of school (DoS) are found insignificant.

The PCI is individually found to be significant for all four districts, the combined sample as well as rural and urban areas of Sikkim. It is also found to be significant for the combined samples of all four districts as well as rural and urban parts of Sikkim with the expected signs. An increase in the PCI will raise the family incomes which will lead to increase the facilities to their children such as good coaching for their difficult subjects, good institutions to study and also fulfill all their requirements they needed in school. Therefore, families with higher incomes will be able to meet the expenses of their children and be able to do proper caring of their child. And hence, it is expected to increase the tendency to send children to school while reducing the chances of children dropping out. Thus PCI is a very important variable for determining the occurrence of dropouts.

The coefficient for economic status of parents is significant only in case of North District with the expected sign which implies a negative correlation with the dependent variable. Thus an increase in the ESP for the respondents from the North district will reduce the probability of incidence of school dropouts in North district. The significance of this coefficient would suggest that the higher the economic status of parents the lesser will be the chances of their children following the path of the dropouts and higher will be the possibility of their completing school in the North district.

Parental education (PE) is significant for the combined sample as well as rural and urban samples with a negative sign. Parental education is also important; because if in a family parents are well educated then they laid their emphasis on their children's education and also give

encouragement to their children for the betterment for their future. Therefore, more the parents are educated lesser will be the chances of their children to drop out from school.

Another variable which plays a very pivotal role is the proportion of income spent on children's education. It is also individually significant in all cases like, district-wise sample and rural and urban regions in Sikkim with expected sign, suggesting that it is negatively correlated with the dependent variable. Thus it clarifies that the families with higher amount of PISCE will enable their children to complete school compared to the families with lower amount of PISCE. The proportion of income spent on children's education ensures the provision of facilities for the children, particularly for the fulfillment of their physical requirements, in addition to their monetary needs, ensuring that there is no shortage of necessities for their learning process. The higher the PISCE, the lower the chances of dropouts and it also supports the effect of PCI. Hence the results for PISCE tend to reinforce those for PCI.

Facilities in school are found significant only for the West District. This means that facilities provided in West district schools' is comparatively lower level unlike the rests of the districts. Therefore, a possible policy imperative could be the fact that provision of additional facilities like mid-day meals and other recreational activities like games and sports, cultural activities etc. could help draw children to schools and retain them there..

So in this analysis to distinguish the effect of four regions viz- East, North, West and South on the chances of the occurrence of school dropouts we have used three dummy variables, DNorth, DWest, DSouth, respectively and the effect of East is captured by the intercept term  $\beta_0$ . From the above result, it is clarify that there exist significant differences among the four districts of Sikkim on the probability of the occurrence of school dropouts. Now if we see the odds ratio in favour of school dropouts for the East districts is captured by  $\beta_0$  and the value is 10.83. Now, if we compare this value with the values of other districts then for West district the odds ratio in favour of school dropouts is higher by 4.62 and the actual value is 15.45 (=10.83+ 4.62). Similarly for South district the odds ratio in favour of school dropouts is higher by 2.28 and the actual value is 13.11 (=10.83+2.28). Again for North district, the odds ratio in favour of school dropout is higher by 3.55 and the actual value is 14.38 (=10.83+3.55). Therefore, from the above analysis we can infer that the odds ratio in favour of school dropouts in West, South and North district is higher than that of East district, which in turn implies that the probability of school dropouts in

West, South and North is higher than that of East district. Since, all the differential intercepts are statistically significant since their p values are low.

Similarly, in order to distinguish the effects on the probability of the occurrence of school dropouts between the urban and rural regions in Sikkim, we have used one dummy variable i.e. DRural while the effect of Urban areas is captured by the intercept term  $\alpha$ . The intercept value represents the odds ratio in favour of school dropouts in Urban regions and the value is 3.33. Similarly, if we compare its value with the odds ratio in favour of school dropouts for Rural regions then the value of Rural regions is higher by about 0.67 and the actual value is about 4.00. Therefore, the value of odd ratio in favour of school dropouts between these two regions shows that the probability of school dropouts in Rural regions is higher as comparing to Urban regions. The coefficients of both rural and urban areas are statistically significant since their p-values are very small.

The goodness of fit of the model is measured by the LR statistic. As the p-value is very small for all the categories so the model has a good fit for all areas.

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## 5.5 Results and Analysis of the Relationship between Human and Social Capital through Least Square Method

$$PISCE_i = \beta_1 + \beta_2 PE_i + U_i \dots \dots \dots (6)$$

$$PISCE_{ij} = \beta_0 + \beta_1 PE_i + \beta_2 DEast_i + \beta_3 DSouth_i + \beta_4 DNorth_i + U_i \dots \dots \dots (7)$$

$$PISCE_i = \mu + \beta_2 PE_i + \beta_3 Rural_i + U_i \dots \dots \dots (8)$$

**Table 5.5: Least Square Estimates of the Relationship between Human and Social Capital.**

Explanatory variables	Estimated Coefficients							
	Combined	DRural	West	East	South	North	Rural	Urban
<b>PE</b>	<b>0.014***</b> (6.936)	<b>0.011***</b> (5.270)	<b>0.010*</b> (1.844)	<b>0.020***</b> (3.181)	<b>0.013***</b> (2.281)	<b>0.012***</b> (2.784)	<b>0.011***</b> (5.444)	<b>0.021***</b> (3.924)
<b>Deast</b>	<b>0.089***</b> (4.212)							
<b>Dnorth</b>	<b>0.019</b> (0.926)							
<b>Dsouth</b>	<b>0.070***</b> (3.332)	<b>0.134***</b> (6.698)						
<b>Drural</b>		<b>-0.038**</b> (-2.544)						
<b>Constant (C)</b>	<b>0.083***</b> (3.919)		<b>0.096***</b> (3.219)	<b>0.329***</b> (5.048)	<b>0.113***</b> (3.846)	<b>0.284***</b> (8.194)	<b>0.095***</b> (6.742)	<b>0.255***</b> (11.121)
<b><math>\beta_0, \mu</math></b>	<b>0.048**</b> (2.263)	<b>0.134***</b> (6.698)						
<b>Adjusted R<sup>2</sup></b>	<b>0.222</b>	<b>0.166</b>	<b>0.055</b>	<b>0.223</b>	<b>0.122</b>	<b>0.118</b>	<b>0.201</b>	<b>0.115</b>
<b>F-Statistic</b>	<b>18.025***</b>	<b>23.639***</b>	<b>8.403***</b>	<b>11.396***</b>	<b>8.100***</b>	<b>7.753***</b>	<b>29.64***</b>	<b>15.403***</b>
<b>Prob (F-Statistic)</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.070</b>	<b>0.002</b>	<b>0.006</b>	<b>0.007</b>	<b>0.000</b>	<b>0.000</b>
<b>Sample Size</b>	<b>240</b>	<b>240</b>	<b>60</b>	<b>60</b>	<b>60</b>	<b>60</b>	<b>120</b>	<b>120</b>
<b>Note: ***, ** and * indicates the significance at 1%, 5% and 10% level respectively. Figures within the brackets represent the t-statistics.</b>								

Note:  $\beta_0$  is the (benchmark) intercept term of equation 7 and  $\mu$  is the (benchmark) intercept term of equation 8.

Table 5.5 shows the estimated coefficients that are for equations (6), (7) and (8) for the combined sample, as well as district-wise and urban and rural samples. Columns 3, 4, 5, 6, 7 and 8 show the estimated coefficients for equation (6), Column 1 shows the estimated coefficients from equation (7) whereas column 2 shows the estimated coefficients from equation (8). The estimated coefficients of from the least square method show the direction of the relationship between the dependent and the independent or explanatory variables.

Before proceeding to our result, it has to be clarified that parental education has been taken as the proxy for human capital while the proportion of income spent on children's education has chosen as the proxy for social capital. Thus social capital has been taken to be the function of human capital. In other words, social capital is the dependent variable whereas human capital is the independent or explanatory variable.

So in above table, it is clear that slope coefficient PE is significant for combined, district-wise as well as rural and urban regions. This implies that in a family if the parents are educated then they will do more investment for their children for the formation of human capital. In other words, educated parents in a family will have higher tendency for the formation of social capital.

For combined sample we have utilised three dummies such as DEast, DNorth, DSouth respectively while the effect of West is captured by the intercept term  $\beta_0$ .

The average social capital formation in West is about 0.048, whereas that for the East is higher by about 0.089, for an actual average value of 0.137 ( $=0.089+0.048$ ) and that of the North is higher by 0.019, for an actual value of about 0.067 ( $=0.048+ 0.019$ ); South is higher by about 0.070, for an actual value of 0.118 ( $=0.048+0.070$ ). All the differential intercepts are statistically significant since their p values are small.

Hence, the overall conclusion is that there are variations in social capital formation with East, North, and South being higher by 0.137, 0.067 and 0.118 respectively.

Similarly, we have used a dummy DRural for the rural areas to identify the variation that exists with the urban areas. Here urban is our benchmark category which is explained by the  $\mu$  value. Now the average value of social capital formation in urban regions is about 0.134. Compared to this the corresponding value for the rural areas is lower by -0.038, for an actual value of 0.096 ( $=0.134 - 0.038$ ). So from this result we can conclude that social capital formation in urban areas is slightly higher than that of rural areas in Sikkim.

Therefore we can conclude by saying that both the models have a good fit since the F-Statistic values are found to be significant while the p-value is small.

## CHAPTER-VI

### **COMPARATIVE STUDY AMONG THE FOUR DISTRICTS AS WELL AS TWO REGIONS OF SIKKIM**

#### **6.1 Comparative study of probability of School Dropouts among the different districts, Rural and Urban regions of Sikkim by using Logit Model.**

From the preceding Table 5.4 (Logit estimation on School Dropouts) shows the estimated coefficients for the comparative study of probability of school dropouts among the district-wise as well rural and urban respondents. The logit model has been used for the estimation. The estimated coefficients for the logit model suggest the direction of the relationship between the dependent and the independent or explanatory variables.

The coefficient for per capita income is negative and statistically significant for all four districts as well as rural and urban regions. This means that if the respondent increases his or her level of earning, then the probability of occurrence of school dropouts will decrease in case of all four districts as well as rural and urban regions of Sikkim. In other words the lower the per capita income greater will be the chances of the student dropping out of school which is clear from the above table. Now if we see the affects of PCI in individual districts then PCI has a greater effect in case of the South and West districts unlike the remaining districts; this implies that the people in these districts have a lower level of PCI formation compared to the other two districts. So if the per capita earnings increase in case of these two districts then it may help in minimising their dropout rates. Similarly the effect of PCI is higher in case of rural areas compared to their urban counterparts as the formation of PCI in rural areas is low due to the lower economic profile and lower level of productivity. Therefore it can say that PCI can serve as an effective tool for checking the dropout rates in Sikkim.

The coefficient for economic status of parents is significant only in case of North District with the expected sign which implies a negative correlation with the dependent variable. Thus an increase in the ESP for the respondents from the North district will reduce the probability of incidence of school dropouts in North district.

Parental education is significant in case of the all four districts as well as rural and urban areas with the expected sign. Therefore, we can say that parental education is also plays a vital role in

minimising the school dropouts in Sikkim. Now if we compare the consequences of PE in case of rural and urban regions in Sikkim then the effects of parental education is more for rural respondents, since, they are less educated than the parents of urban respondents. So an increase in the parental education in rural areas can yield better outcomes. In other words, the higher the parental education of respondents the greater will be the chances of their children finishing school.

Another variable which plays a very pivotal role is the proportion of income spent on children's education. It is also individually significant in all cases like, district-wise sample and rural and urban regions in Sikkim with expected sign, suggesting that it is negatively correlated with the dependent variable. Coming to the individual districts then its effect is higher for the South district followed by West, East and North districts. This implies that increase in PISCE will have higher effects in case of South district, followed by the West, East and North districts. So families with the higher provision of PISCE will have greater chances of completion of school by their children. So in order to supplement PISCE, PCI is an important element. Thus PCI is complementary to PISCE in terms of its effect on dropout behaviour.

Facilities in School have a significant impact only in case of the West district and play no role in rest of the districts, the combined sample and the rural and urban areas in Sikkim. The results indicate that adequate facilities in schools of the West district can reduce the chances of school dropouts. This also suggests that facilities in schools in the West district are comparatively lower than the other districts.

Distance from school seems to play no significant role on the occurrence of school dropouts in Sikkim.

So from the table 5.3<sup>44</sup>, we can infer that in the district-wise comparison the important factors or variables that affect the probability of occurrence of school dropouts are per capita income, economic status of parents, parental education, the proportion of income spent on children's education and the facilities in school. On the other hand distance from school is found to be insignificant. Among these, the most significant variables that lead to the incidence of school

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<sup>44</sup>.Result and Discussions; table 5.4: Logit estimation of School Dropouts

dropouts are per capita income and the proportion of income spent on children's education for the individual districts and also rural and urban regions.

Similarly for both rural and urban regions the factors which lead to incidence of school dropouts are parental education including per capita income and the proportion of income spent on children's education. In case of the individual districts the important variables that cause school dropouts are per capita income and proportion of income spent on children's education. Apart from these variables facilities in school for West district and economic status of parents for North district are also responsible for the occurrence of school dropouts.

Since the p-value of the LR statistic is very small we can say that the model is a good fit.



## **6.2 Comparative study of formation of Social Capital among the different districts, Rural and Urban regions of Sikkim by using Least Square Method.**

From the earlier analysis, table 5.3<sup>45</sup>, shows the estimated coefficients for the comparative study of the formation of social capital by using human capital among the urban and rural respondents and the entire individual district. The least square method has been utilised for the estimation procedure. The estimated coefficients of the Least Square method show the direction of the relationship between the dependent and independent/explanatory variables.

Before proceeding to our result, it has to be clarified that parental education has been taken as the proxy for human capital while the proportion of income spent on children's education has chosen as the proxy for social capital. Thus social capital has been taken to be the function of human capital. In other words, social capital is the dependent variable whereas human capital is the independent or explanatory variable.

Now the coefficient of parental education is negative and statistically significant at 1% level of significance for rural and urban areas as well as all individual districts except the West district which is significant at 10% significance level with the expected positive correlation with dependent variable. This indicates that higher education levels of parents will have greater impacts on the proportions of income spend on children's education. This also means that parental education is an important causal factor impacting the spending of income for children's education. In other words, human capital is necessary for making social capital. One of the major explanations for school dropouts is the lack of social capital formation. This argument is also complimented by the result of logit estimation where we have found that an increase in the PISCE leads to decrease in the chances of school dropouts.<sup>46</sup> So we can infer that there exists a positive correlation between dependent variables and the independent variable.

So from the above table, it is clear that the effect of coefficient of parental education is higher in case of East district followed by South, North and West district respectively. The possible reasons may be that the East district is the capital of Sikkim and home to comparatively well to do and highly educated people compared to the rest of the districts. In comparison, the West

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<sup>45</sup> Table5.5: Least Square Estimates of School Dropouts.

<sup>46</sup> . See Table 5.4

district is regarded as poor performer in term of formation of social capital which implies that education of parents, and the occupation pattern in West district is comparatively lower than the rest of the districts. Similarly, urban areas have higher social capital formation compared to rural areas. The reason for this may be that more educated parents reside in urban areas compared to rural areas.

Since the p-value of F-statistic is very small we can say that the model is a good fit.

## CHAPTER-VII

### **CONCLUSIVE OBSERVATIONS AND POLICY PRESCRIPTIONS**

#### **7.1. Concluding Observations**

Dropping out of school is considered to be an important educational and social problem. As such, it has commanded the attention of researchers, policy-makers, and educators who are trying both to better understand the nature of the problem and to do something about it. Leaving school prior to completion of education will severely limit the economic and social well-being of the affected individuals throughout their adult lives. So the purpose of this study was to record and analyse students', parents' and teachers experiences regarding the children's dropping out of school within a social capital framework. The study has utilised qualitative and quantitative methods to analyse the stories of students who dropped out of school. This chapter will discuss the conclusions of the study.

Developing social capital offers a pathway for removing barriers for students and for building bridges that bring school personnel, community members, and families together to keep children in school. Social capital enhances the potential for the school going children to complete their education in their school. In addition, access to social capital necessarily enhances the students' chances of completing school.

Social networks among parents, educators, and community members are crucial to the success of each child. School social capital, family social capital, and community social capital develop as a result of participation in social networks. Therefore, if these networks are properly formed then it will improve the children's behaviour towards study while also enhancing the chances of the students completing school.

The general views given by many of dropouts, parents and the teachers lead to the conclusion that the problem of school dropouts is not only viewed from the educational aspects but also through social, economic and psychological factors as well. So the dropout problem is unlikely ever to go away. But concerted and cooperative efforts by educators, policymakers, and educational researchers can improve our understanding of the problem and help to reduce this incidence.

The results indicate that out of a sample of 240 61 percent are not involved in the occurrence of dropouts whereas the remaining 39 percent have had an incident of dropout. The occurrence of school dropouts is higher in case of males than for females. Approximately 67 percent males are involved in the occurrence of school dropouts while in case of females is 33 percent. Therefore, male students are more likely to drop out of school compared to female students. The study also found that average age of the respondents who have dropped out in general is approximately 16 years, 17 years in case of male respondents and 16 years for female respondents respectively.

From the preceding result, we have determined the socio-economic differences among the rural and urban respondents as well as district-wise respondents. The values of the Gini coefficient suggest that there is homogeneity with respect to income earning between the rural and urban areas. In case of individual districts, the extent of income inequality is almost similar in all four districts except North District which has demonstrated a greater degree of heterogeneity in income earning of the respondents compared to the remaining districts.

The present study has identified the important factors in Sikkim affecting student dropout behaviour in the form of per capita income, parental education, proportion of income spent on children's education, economic status of parents and facilities in school. Among these factors per capita income, proportion of income spent on children's education and parental education are the most significant factors that contribute to students dropping out of school.

It was found that social capital formation is higher in case of the East district followed by South, North and West districts respectively. This was based on the proportion of income spent on children's education in each district. Thus parental education is important factor influencing investment on children's education. In other words, education level of parents in East district is comparatively higher than the rest of the districts. Again, the urban areas have performed better in terms generating social capital than the rural areas. This may be due to the higher level of the education of parents in urban areas.

The survey revealed that economic, social and school related reasons are the major contributing factors behind occurrence of dropouts. Family background such as low socio-economic and educational status of the parents are significantly correlated with the phenomenon of dropping out and in case of more than 60 percent of the sample, we have found that children dropped out

due to financial constraints in the family. It was also observed that in many cases older siblings quit their school in order to send their younger brothers or sisters to school. Households have reported that they could not bear the expenditure involved in sending children to school. It has been argued that the lower educational level of the parents is also an important drawback, because parents with low level of education will not understand the meaning of education.

Apart from these reasons, there are some school related factors for which causes the students to drop out of school. These factors include difficulties in learning, specially on subjects like mathematics and science, grade retention, mistreatment from the teachers, absenteeism and unfavourable school environment. Many of the dropout students revealed that they have been misjudged by teachers and students themselves have no interest in studies and also grade retention due to their absenteeism.

Many of students, teachers and parents have also identified social factors among those responsible for students discontinuing their education. Such factors include the effect of their friends circle, early marriage, use of drugs and others harmful substances, political influences, lucrative career options etc. Many aged and the experienced people of Sikkim share the views that at present many students have become a victim of these chronic factors and as a result sooner or later they drop out from school.

A major factor leading to the weakening of the educational career of students and often causing a student to drop out from school is the socio-economic background of their parents.

## 7.2. Policy Prescriptions

Not all the students can or should be expected to finish school stage. Yet many students want to finish school and could be helped through effective policy interventions. Without such interventions the dropout rate could easily increase due to the rising population and greater academic requirements for completion of school.

Since independence, the government and educational policies makers are trying to make concerted efforts for finding and promoting solutions to the dropout problem throughout the India. Many individual states as well as districts, especially those with large at-risk populations, have introduced a variety of programs designed to reduce the incidence of dropouts. Therefore, many new studies need to be undertaken to identify and characterise successful dropout programs around the country.

As mentioned earlier, students' dropped out for different reasons. Some are related to problems in school (lack of interest or poor performance, grade retention and unfavorable school climate), others are related to factors outside the school such as economic problems in a family (desire to work, helping hands for the family and financial constraint) and some are related with personal issues ( Early marriage, pregnancy issues and peer influence). Thus, a comprehensive strategy will be needed for addressing all of these factors, providing programs for different children with different needs.

Each of these major facets - the incidence of the problem, its causes, consequences, and remedies requires attention. This necessitates a broad interdisciplinary approach that acknowledges not only the educational aspects of the problem, but the social, economic and psychological factors as well. The dropout problem is unlikely ever to go away. But concerted and cooperative efforts by educators, policymakers, and educational researchers can improve the understanding of this problem and help in reducing its incidence.

- The government should take major steps for raising the standard of living of the people in Sikkim by introducing new employment schemes especially in rural areas. As per the preceding analysis low per capita income earning is the major reason for students dropping out of school. Therefore, if we increase the socio economic condition of those

families then it could help in minimising school dropout who is likely to drop out from school because, they unable to meet their expenses.

- The government as well NGOs should provide new programmes and opportunities for man power planning, counseling programs for students stressing on the importance of education, awareness camps against early marriage as well as drug and other harmful substances etc. which also contribute for children dropping out of school.
- The government should be able to generate more employment programs and job opportunities for educated youths who have finished their education; therefore, it could leave impression for the school going youths and attract them in getting education.
- Every school in Sikkim should create favourable environment for students to pursue their education. Schools should also encourage participation in co-curricular activities like sports and games, music and cultural programmes, essays and poetry, art and painting etc. so as to attract children to school.
- The home is the important place where a child spends most its time with the family. So family should create favourable environment for the child and handle it with love, affection and care. In Sikkim, parents probably do not spend sufficient time with their children; nor do they check on the progress of their study or counsel them on their future prospects.
- Government, parents as well as teachers should encourage dropout students to resume their normal schooling, provide on the job training and others career programmes which can help them to sustain their livelihood.
- In Sikkim, most of the students are poor especially in Mathematics and Science subjects which are another important cause for school dropouts. Therefore, good coaching facilities for these subjects may be introduced throughout the state.
- Lastly, parents, elders and teachers should make their children aware about the importance of education and it will be fruitful when students should take a personal interest in their studies as a means towards a better future.

## BIBLIOGRAPHY

Aide Memoire, (20th to 31<sup>st</sup> July, 2009). Sarva shiksha abhiyan (SSA), 10<sup>th</sup> joint review mission of sarva shiksha abhiyan government of India

Arun .C Mehta (April 2007). Student Flow at Primary Level an Analysis Based on DISE Data. Published by National University of Educational Planning and Administration and Department of School Education and Literacy, Ministry of Human Resource Development Govt. of India.

Centre for child and family policies Duke University North Carolina Family Impact Seminar. Dropout Prevention: Strategies for improving high school graduation rates.

Databook for DCH, (18<sup>th</sup> October, 2013): 219 - 308.

Govt. of Sikkim (2010-11): State Profile of Sikkim: 36

Gujarati Damodar (2007). Basic Econometrics. Published by Tata McGraw Hill Education Private Limited

H.M. Berston (18/10/2000): *The school dropout problem*. Published by Taylor & Francis, Ltd. Vol- 35.

Ian Falk. Human capital and Social capital: what's the difference? Adult Learning Commentary, number 28.

Joseph S.Renzulli and Sugnee Park (2000). *Gifted Dropouts: The Who and the Why*. the University of Connecticut.

Julie A. Drewry (February 12, 2007). *High School Dropout Experiences: A Social Capital Perspective*. Virginia Polytechnic Institute & State University.

Kundu Ruma and Mandal Indraneel. Socio-Economic Perspectives on School Dropouts: A Comparative Case Study in East and West Sikkim. Rural Livelihood in India. Serials Publication, New Delhi. 2014. 301-317.



Levin, H. M. (1972). The costs to the nation of inadequate education. Study prepared for the Select Committee on Equal Educational Opportunity, U.S. Senate. Washington, DC: U.S. Government Printing Office

Mahendra P. Lama (2001). Published by Esha Beteille Social Science Press and Government of Sikkim: Sikkim Human Development Report 2001.

Marcella r. Dianda, Ed.D (November 2008). Preventing future high school dropouts: An advocacy and action guide for NEA State and Local Affiliates. Published, copyright 2008 by the National Education association All Right Reserved.

Mark Fetler: *School dropout rates, Academic performance, size, and poverty: Correlates of educational reform*. Published by American Educational Research Association.

Martha Abele Mac Iver and Douglas J. Mac Iver (2009). *Beyond the Indicators: An integrated, School level approach to school dropout prevention*. Published by Mid Atlantic Equity Centre.

Ministry of Human Resource Development, Department of School Education and Literacy (2009). The right of children to free and compulsory education act.

Niranjanardhya VP and Abhinav Jha. Right of children to free and compulsory education act- Miles to go... A case study of Bannikuppe gram panchayat, Ramanagar district, Karnataka. Published by Books for Change, International publishing house.

Pete Goldschmidt and Jia Wang (winter, 1999). *When can Schools Affect dropout behavior? A Longitudinal multilevel analysis*. Published by American Educational Research Association Journal, Vol 36, No.4.

Russell W. Rumberger (October 2011). *Dropping Out: Why students drop out of high schools and what can be done about it*. Published by Harvard University.

Reddy Anugula N and Sinha Shantha (2010), School Dropouts or Pushouts? Overcoming Barriers for the Right to Education, *NUEPA*, 3.

Robert Whannel and William Allen (2011). *High school dropouts returning to study: the influence of the teacher and family during secondary school*. Australian journal of teacher education, volume 36, issue 9, article-3.

Rupon Basummstary (December (2012) *School Dropout across Indian States and UTs: an Econometric Study*: International Research Journal of Social Sciences Vol. 1(4), 28-35.

Russell W. Rumberger and Gregory J. Palardy (2005). *Test Scores, Dropout Rates, and Transfer Rates as Alternative Indicators of high School Performance*. Published by American Educational Research Journal.

Russell W. Rumberger *High School Dropouts: A Review of Issues and Evidence*. Published by American Educational Research Association, University of California, Santa Barbara.

Sunita Chugh (February 2011) *Dropout in secondary education: A study of children living in slums of Delhi*. Published by National University of Educational Planning and Administration, New Delhi-110016.

Tom Schuller. *The complementary roles of human capital and social capital*. Published by Birkbeck College, University of London.

Usha Jayachandran (March 17, 2007). *How High are Dropout Rates in India?* Published by Economic and Political Weekly.

Daily News and Analysis, India, online: [http://www.dnaindia.com/india/report\\_rte-report-carddropout-rate-in-schools-falls\\_1669959](http://www.dnaindia.com/india/report_rte-report-carddropout-rate-in-schools-falls_1669959), April 1 (2012) accessed on December 30, 2014.

TimesofIndia, [http://articles.timesofindia.com/2012-04-01/india/31269828\\_1\\_rte-provisionsdropout-rate-teacher-student-ratio](http://articles.timesofindia.com/2012-04-01/india/31269828_1_rte-provisionsdropout-rate-teacher-student-ratio), April 1, (2012) accessed on October 30, 2012.