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Analysis of educational disparities in border areas of India: a study of Gurez Valley

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Abstract Border areas have their problems and peculiarities. People of Jammu and Kashmir living close to the international border have to deal with special problems arising out of their distinct geo-physical situation. Gurez Valley, a tehsil of district Bandipora also shares borders with Pakistan. The Line of Control, one of the most militarized frontiers on earth runs just a few miles north of Gurez. This region remains cut off from rest of the world for nearly six months due to adverse climatic conditions and also because the valley was declared off-limits to outsiders at the beginning of 1947. Despite being covered under the Border Area Development Programme, Gurez exhibits low levels of development especially in terms of education. The Dakar Framework for Action adopted in Senegal in 2000, identified conflict as a major barrier towards attaining Education for All'. Further, all countries had agreed to eliminate gender disparities in primary and secondary education by 2005 and to achieving gender equality by 2015. According to the 2011 census, there is a gender gap of more than 30% in the literacy rate of Gurez. The present study assesses the situation of education in Gurez, including the disparities in educational development across villages by applying the Kendall's Rank Order method. Secondary sources of data particularly Census of India reports; Digest of Statistics, District Handbooks, etc. have been used to collect information about various educational indicators. The villages are classified subsequently into three development categories according to the values of the constructed ranks. Results indicate that almost all the villages of Tulail zone have a literacy rate of less than 50%. Villages like Malangam and Gujran have literacy rate as low as 24.91% and 35.87% respectively. Disparities in terms of gender have also been analysed by comparing the female literacy rates and enrollment of girls in schools to that of boys in various villages. Of the total 28 villages, 17 have a female literacy rate of less than 40%. Some villages like Forest Block, Niru, and Abdullan have a gap of 76.94, 52.67, and 39.13% in the male–female literacy rates.

Keywords Border areas · Gurez · Conflict · Educational development · Disparities · Kendall's Rank Order

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Introduction

The international community has committed itself, in the Dakar Framework for Action, to having all eligible children attending fee-free primary schooling by 2015 (EFA, 2003). For the individual, a good quality education not only enhances their capability to generate income but also contributes to their general well-being (Qian & Smyth, 2008). Education is a key element as it has the potential to increase human capital; it removes inequality from society, impacts the growth of employment, and improves a country's Gross National Product (GNP) (Katiyar, 2016). Education is increasingly accepted as an integral part of humanitarian response in emergencies. It can help restore normalcy, safeguard the most vulnerable, provide psychosocial care, promote tolerance, unify divided communities, and begin the process of reconstruction and peace-building (United Nations Children's Fund (UNICEF, 2006).

The field of Education and Conflict is receiving increased attention, within the media (Paulson & Rappleye, 2007), in the academic field, and from policymakers and practitioners. Yet, it remains a 'field in its infancy' (Tomlinson & Benefield, 2005). The United Nations Development Programme (UNDP) report notes how conflict and civil war are undermining the possibility of achieving the Millennium Development Goals (MDGs; UNDP, 2005) with conflict damaging nutrition and public health, destroying education systems, devastating livelihoods, and retarding any prospects for economic growth (UNDP 2005). The Dakar Framework for Action adopted in Senegal in 2000, identified conflict as a major barrier towards attaining Education for All'. Only 79% of young people are literate in conflict-affected poor countries, compared with 93% in other poor countries. State and non-state parties involved in armed conflicts are increasingly targeting civilians and civilian infrastructure. Schools and school children are widely viewed by combatants as legitimate targets, in clear violation of international law (Education for All (EFA, 2011).

Regions that lie along borders lack access to proper education and thus become victims of regional inequality. Equal access to education is one of the basic human rights to which all are entitled (Qian & Smyth, 2008). However, there are disparities in education on various fronts e.g. across regions and genders. Empirical studies have found that unequal distribution of education tends to have a negative effect on income dispersion (O'Neill, 1995; Park, 1996) and economic growth (Lopez et al., 1998). Zhang and Li (2002) examine international inequality of educational attainment and find, by decomposition of the Gini coefficients of education, that the gap between developing and developed countries is one of the main components of world inequality in educational attainment in both 1960 and 1990.

Gender parity in education is a fundamental human right, a foundation for equal opportunity and a source of economic growth, employment, and innovation (EFA, 2011). Literacy is a tool to empower women in the wider struggle against inequality and injustice in society (Patel & Dighe, 1997). Education plays an important role not only in facilitating economic growth but also in contributing to social equity (Qian & Smyth, 2008). In the context of Indian society, which is essentially patriarchal, it is women and girls who suffer because of low accessibility to education. In other words, gender becomes an important factor in determining the education level of an individual (India Human Development Report, 2011).

Countries affected by armed conflict are among the farthest from reaching the Education for All goals, yet their education challenges go largely unreported. The hidden crisis in education in conflict-affected states is a global challenge that demands an international response. Children in conflict-affected poor countries are twice as likely to die before their fifth birthday as children in other poor countries (EFA, 2011). The problem of women's illiteracy is directly connected to the problem of poverty and hence there is a serious need to pay attention to economic barriers (Dighe, 1991). The factors responsible for poor female literacy rates include gender-based inequality, social discrimination and economic exploitation, the occupation of the girl child in domestic chores, the low enrolment of girls in schools, their low retention rate and high dropout rate (Government of India, 1998). In the Dakar framework for action, all countries had agreed to eliminate gender disparities in primary and secondary education by 2005 and to achieving gender equality by 2015.

The Gurez Valley, a tehsil of district Bandipora is a zone of perpetual disturbance as it shares borders with Pakistan. The Line of Control, one of the most militarized frontiers on earth runs just a few miles

north of Gurez. It is the hot spot for both the countries (India & Pakistan) for landmines and shelling (Mir, 2014). This has resulted in various kinds of threats to the inhabitants. There is a 15% increase in the rate of abortions due to the radiations emitted through shelling etc. Also, patients with chest diseases like Asthma, throat infections, etc. have increased and after the age of 25, most people suffer from the hearing problem because of the shelling and blasts which happen often during rehearsals and training of troopers from both the sides There have been many incidents of deaths of locals and losses of agriculture & livestock due to shelling in the area. The infrastructure of the area is also vulnerable. There are records of shelling on the schools and emergency evacuation of students thereof (Mir, 2014).

The region remains cut off from the rest of the world for nearly six months due to adverse climatic conditions and also because the valley was declared off-limits to outsiders at the beginning of 1947. Because of the difficulties faced by people, the Border Area Development Programme (BADP) was introduced in 1992–93 for the states bordering Pakistan, including Jammu and Kashmir (Planning Commission, 2011). Programme (BADP) was introduced in the year 1993–94 as a Centrally Sponsored Scheme. Initially, the programme was implemented in the Western Border States with an emphasis on the development of infrastructure to facilitate deployment of the Border Security Force. Later, the ambit of the programme was widened to include other socio-economic aspects such as education, health, agriculture and other allied sectors (NITI AAYOG, 2015).

Despite being covered under the Border Area Development Programme (BADP), Gurez exhibits low levels of development especially in terms of education. The present paper tries to analyse the regional disparity in terms of education in the area. It also tries to bring forth the plight of women's education by comparing their literacy rates and school enrollment to that of males. Gurez shows overall backwardness mainly in all spheres of economic activity. However, the backwardness is far more evident as one move to Tulail zone of the Valley. Since this study highlights disparities, it will enable proper management and distribution of educational resources in the area to address regional inequalities. It will also help to address gender disparity in education at all levels. Women are among the most vulnerable groups during conflict for more reasons than just violence. Gurez, despite being covered under the Border Area Development Programme (BADP), exhibits low levels of overall development including educational development. Total literacy rate of the area is 59.17% (Census, 2011). Total male literacy is 71.38%, while the total female literacy rate is only 40.49%.

Review of literature

Education can be regarded as systematic efforts built up by the society to yield knowledge, value, attitude and skill towards an effort to enhance one's potential for further development of the society (Idris et al., 2012). It occupies a pivotal position in the development of society (Batool et.al, 2020) Education is one of the key domains of human capital. Besides improving the well-being of the individuals and building on cognitive skills, it acts as a catalyst for the closely interrelated economic, social, cultural and demographic changes in the population (Chatterjee, 2019). Disparities in learning remain a key concern for education policymakers worldwide. Poverty supersedes all other characteristics as a predictor of learning disparities (Alcott, 2017). According to the Global Education Monitoring Report (GEN) Published in (2020), the Indian education system is producing the largest number of graduates each year in the world (Khatun & Dar, 2019) even though education system in Indian is married by gross inequalities in access the report further mentioned that class, Linguistic background, gender, ethnicity and place of birth all have an impact on the educational. Indian census data show that gender inequalities in literacy rates have remained consistent for decades (Kingdon, 2007). There exists a huge disparity in the distribution of education across the districts of India (Chatterjee, 2019). Asadullah and Yalonetzky (2010) conclude that India's record in reducing inequality of educational opportunity in post-liberalization is characterized by considerable variation across states and regions.

Border areas have their problems and peculiarities. Such areas are in general less accessible, making provision of basic facilities more difficult and costly (Gogoi et al., 2009). It makes greater sense strategically to have sparsely-populated border regions with poor infrastructure functioning as a barrier against external threats from the states across the borders

(Kamel, 2004). Borders are geographic boundaries of political entities or legal jurisdictions, such as governments, sovereign states, federated states, and other sub-national entities. National boundaries are invisible lines that surround states. Yet, boundaries probably are the most visible features on the political map. A nation's boundary is the thin skin that touches the outside world. It has been called the "zone of friction" because it contacts and rubs against neighbours (Norris, 1980). In his book Political Frontiers and Boundaries, Prescott defines a "Boundary" as a line of physical contact between states, which affords opportunities for co-operation and discord between states (Prescott, 1987).

Thus, borders have been construed as 'institutions that serve to mark the functioning barrier between states, to impose control over the flows of people and regulation of cross-border trade, or to indicate the evolving gateway to facilitating contact and interchange' (Karen et al., 2004). 'Border' as 'frontier area' or 'zone' is a meaning which merges into 'border region', and this term has a variety of meanings. It encompasses areas immediately beside a state's external border, or straddling it, and also administrative regions abutting a border whose centres are physically and socially distant from that border (Anderson et al., 1999).

The UT almost centrally situated on the map of Asia, is of strategic significance not only for India but for all other neighbouring Nations. The location aspect of J&K accounts for its geo- political significance (Qazi, 2005). The State shares a 1001 km long international boundary with Pakistan (Jammu-205 km, Kashmir Valley-460 km and Ladakh/Siachin area-336 km) which is called Line of Control (LoC) and 365 km with China in Ladakh region. Out of 22 districts of Jammu and Kashmir, there are nine border districts (Badgam, Bandipora, Baramulla Jammu, Kargil, Kupwara, Leh, Poonch, Rajouri) sharing Indian International borders with Pakistan, Afghanistan and China.

Study area

The Union Territory of Jammu and Kashmir strategically located in the north-west corner of India shares borders with China in the east, Pakistan in the north-west and plains of Punjab and Himachal in the south and south-east (Wani et al., 2020). The UT has become the bone of contention between India and Pakistan as both claim their legitimate right over the UT, making it a zone of perpetual conflict. Gurez, a valley located in the Himalayas, about 82 kms from Bandipora district in North Kashmir and Southern Gilgit-Baltistan is located close to the India-Pakistan border. The Line of Control, one of the most militarized frontiers on earth runs just a few miles north of Gurez. The valley lies at an average altitude of about 2370 m a.s.l. It is one of the far-flung regions of Jammu and Kashmir, cut off for nearly six months from the rest of the world, as the only road in and out of the valley is buried deep beneath the snow (Fig. 1).

According to the 2011 Census, Gurez is the least populated tehsil of district Bandipora with 37,992 persons. The tehsil also has the lowest population growth rate in the district i.e. 26.04. The total number of inhabited villages is 28. The Villages represent variation in terms of the total population within the villages, ranging from 249 persons in Wazirithal to 4253 persons in Dawar. The valley houses a unique Shina-speaking tribe of Dards who have been cut off from their mainland Astore, Gilgit, and Chilas across the Line of Control (Dad, 2011). The Shin is a group of people, predominantly found in northern Pakistan's Gilgit–Baltistan and Khyber Pakhtunkhwa region, northern India's Jammu and Kashmir region, and in eastern Afghanistan (Singh, 2016) (Fig. 1).

Michael Benanav, the first western photographer to enter Gurez in at least six decades, at the end of the year 2007 wrote about Gurez,

> A deeply isolated place that was beautiful and weird, idyllic and surreal, at once an alpine Shangri-La and a militarized zone.

Since Border regions are usually the most remote, inaccessible areas, they lack the adequate provision of infrastructural facilities i.e. roads, power, health, education, drinking water, transport & communication, etc. These are also the most fragile areas in terms of ecosystem sustainability. Gurez is also a border region and is faced with problems associated with border regions. The total literacy rate of Gurez according to the 2011 census was 59.17%. Total male literacy was 71.38%, while the total female literacy rate was only 40.49%. There is a gender gap of more than 30% in the literacy rate of Gurez. Taking into consideration the overall backwardness of the area, the

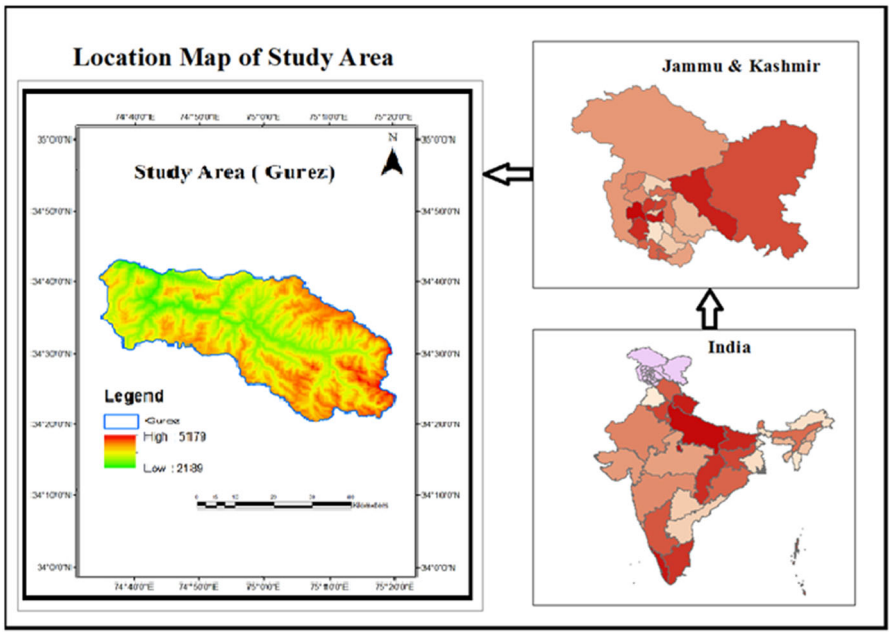

Fig. 1 Location map of Gurez valley, Source: developed by researcher from toposheets (Survey of India)

present study aims to assess the existing scenario of educational development in the Valley.

Materials and methods

The study is based on secondary sources of data particularly the Census of India reports, Digest of Statistics, District Handbooks, and ZEO's (Zonal Education Officer) Office Gurez. Kendall's ranking coefficient method was used to analyze the spatial variations in educational development. In Kendall's method to remove the scale, effect ranks are given to each indicator and equal weightage is given to all indicators. Thus the composite index is given by:

$$Ij = \sum_{i=1}^{n} Rij$$

where *Rij* is the rank of *ith* indicator in the *jth area, Ij* is the composite index and *n* is the number of selected indicators.

A total of 19 indicators were selected based on their relevance to the objectives of the study. These were used to assess the development of education at the Village level. The indicators were assigned values. The ranking has been done in descending order i.e. higher the value; lower the rank. Accordingly, the average of every indicator was calculated and the villages securing maximum average were categorized under low developed category villages and vice versa. The acquired data were tabulated, analyzed, interpreted in the form of tables, diagrams, and accordingly elaborated. Gender disparity in education was highlighted through various pie-charts and bar-graphs.

The indicators are:

Educational Indicators: **X1:** No. of Primary Schools **X2:** No. of Middle Schools **X3:** No. of High Schools **X4:** No. of Higher Secondary Schools **X5:** Total Number of Boys in Primary Schools **X6:** Total Number of Girls in Primary Schools **X7:** Total Number of Boys in Middle Schools **X8:** Total Number of Girls in Middle Schools **X9:** Total Number of Boys in High Schools **X10:** Total Number of Girls in High Schools **X11:** Total Number of Boys in Higher Secondary Schools **X12:** Total Number of Girls in Higher Secondary Schools **X13:** No. of Teachers in Primary Schools **X14:** No. of Teachers in Middle Schools **X15:** No. of Teachers in High Schools **X16:** No. of Teachers in Higher Secondary Schools **X17:** Total Literacy Rate **X18:** Male Literacy Rate **X19:** Female Literacy Rate.

Data regarding indicators X1 to X16 has been obtained from ZEO's office Gurez, which had been generated by the department in the year 2018. The

Table 1 Regional disparities in the level of educational development

Educational indicators

X1: No of primary schools
X2: No of middle schools
X3: No of high schools
X4: No of higher secondary schools
X5: Roll of boys in primary schools
X6: Roll of girls in primary schools
X7: Roll of boys in middle schools
X8: Roll of girls in middle schools
X9: Roll of boys in high schools
X10: Roll of girls in high schools
X11: Roll of boys in higher secondary schools
X12: Roll of girls in higher secondary schools
X13: No of teachers in primary schools
X14: No of teachers in middle schools
X15: No of teachers in high schools
X16: No of teachers in higher secondary schools
X17: Total literacy rate
X18: Male literacy rate
X19: Female literacy rate

Name of village	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12	X13	X14	X15	X16	X17	X18	X19
Gulshan Pora (Bagtor)	4	8	1	1	20	24	121	137	24	14	99	88	9	60	13	10	61.1	71	50.56
Nail Kanzalawan	5	4	1	0	40	52	46	43	33	34	0	0	10	38	14	0	76.01	81.18	46.04
Korgbal	0	1	0	0	0	0	10	21	0	0	0	0	0	6	0	0	56.84	67.5	44.92
Mastan Khopri	0	1	1	1	0	0	4	4	0	0	0	0	0	14	0	0	70.19	78.26	61.06
Dawar	3	3	0	2	9	5	39	32	0	0	238	195	8	23	0	14	80.55	87.65	62.79
Badwan Wanpora	5	5	1	0	50	35	79	80	53	31	0	0	9	41	18	0	70.24	78.15	60.17
Khandyal	3	3	0	0	20	15	38	44	0	0	0	0	6	21	0	0	69.18	75.95	61.66
Markoot	3	3	0	0	28	31	59	42	0	0	0	0	6	19	0	0	61.4	70.97	47.86
Shah Pora (Achura Chowrwan)	3	4	2	0	39	42	115	121	38	49	0	0	6	21	18	0	59.04	70.03	46.96
Kilshi Pain	8	4	1	0	78	53	45	42	31	42	0	0	16	21	13	0	48.43	55.91	39.87
Barnia	2	3	0	0	32	36	35	31	0	0	0	0	4	17	0	0	62.03	72.87	50.85
Zadigi	1	2	0	0	10	8	63	51	0	0	0	0	2	12	0	0	43.37	47.97	38.96
Dangi Thal	1	2	0	0	16	17	34	27	0	0	0	0	2	12	0	0	51.52	65.06	37.7
Parana Talel	2	3	1	1	31	21	65	50	0	0	98	58	4	16	8	7	35.82	45.65	25.44
Jurniyal	5	2	1	0	30	31	32	27	0	0	0	0	10	11	11	0	39.75	46.71	31.87
Manz Gund	2	1	0	0	8	9	26	30	0	0	0	0	4	6	0	0	31.94	43.41	20.29
Niru	0	4	0	0	0	0	110	94	0	0	0	0	0	21	0	0	70.91	83.43	30.76
Wazirithal	1	1	0	0	8	13	10	8	0	0	0	0	2	6	0	0	46.98	52.45	41.73
Badugam	5	5	0	1	62	34	103	251	0	0	139	89	10	32	0	7	42.96	55.85	27.46
Saradab	5	3	0	0	48	55	70	61	0	0	0	0	10	16	0	0	47.47	59.74	34.55
Buglindar	0	2	1	0	0	0	69	56	127	58	0	0	0	10	11	0	36.57	51.59	20.41

Table 1 continued

Name of village	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12	X13	X14	X15	X16	X17	X18	X19
Gund Gul Sheikh	1	1	0	0	13	9	22	18	0	0	0	0	2	6	0	0	39.45	54.08	22.52
Husan Gam	1	1	0	0	16	16	33	28	0	0	0	0	2	6	0	0	37.93	52.9	21.99
Malangam	0	1	1	0	0	0	28	28	14	10	0	0	0	5	11	0	24.91	43.51	19.34
Baduab	1	3	0	1	9	14	84	97	0	0	47	34	2	20	0	8	43.08	53.09	32.06
Gujran	2	1	1	0	19	27	37	38	84	52	0	0	4	8	12	0	35.87	51.07	17.67
Abdullan	2	1	0	0	31	23	29	19	0	0	0	0	4	7	0	0	33.04	51.47	12.34
Forest Block	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66.42	78.76	1.82

Source Census of India 2011, District Census Handbook 2011, ZEO's Office Gurez

literacy rate has been calculated from data obtained from the Census of India 2011.

Results and discussion

Results

Village level disparity in educational development

Table 1 gives data about the nineteen indicators of educational development that have been selected for the present study. The ranks of these indicators and their average values give an idea of the level of development of different villages in the study area (Table 2).

Accordingly, the study area was divided into three development categories i.e. highly developed, moderately developed, and least developed (Fig. 2). A total of 7 villages fall under the highly developed category (0–10 average value). While 20 villages with an average rank between 11 and 20 fall in the moderately developed category. Only 1 village i.e. Forest Block has an average rank of more than 21 and is categorized as least developed village.

In the highly developed category, all villages except two i.e. Kilshi Pain and Badugam belong to the Gurez zone. Of the 20 villages that fall in the moderately developed category, 16 belong to the Tulail zone. Among these, 6 have an average rank of more than 18. Only 4 villages in this category i.e. Korgbal, Mastan Khopri, Khandyal, Markoot belong to the Gurez zone. The indicators highlight the overall backwardness of Gurez Valley in general and that of Tulail zone in particular. Almost all villages of Tulail zone have a literacy rate of less than 50%. Villages like Malangam and Gujran have a literacy rate as low as 24.91% and 35.87% respectively (Table 1). Also, there is only one College in Badwan Wanpora which mainly caters to villages of Gurez zone. The students of Tulail have to travel more than 30 km to reach college, leading to low literacy rates in these villages.

Gender disparity in education

Of the 28 villages, 17 have a female literacy rate of less than 40% (Fig. 3). Female Literacy in Forest Block is as low as 1.82%. Abdullan, Gujran, Malangam, Manz Gund, and Husan Gam have 12.34%, 17.67%, 19.34%,

Table 2 Kendall's rank order score method

Educational indicators

X1: No of primary schools
X2: No of middle schools
X3: No of high schools
X4: No of higher secondary schools
X5: Roll of boys in primary schools
X6: Roll of girls in primary schools
X7: Roll of boys in middle schools
X8: Roll of girls in middle schools
X9: Roll of boys in high schools
X10: Roll of girls in high schools
X11: Roll of boys in higher secondary schools
X12: Roll of girls in higher secondary schools
X13: No of teachers in primary schools
X14: No of teachers in middle schools
X15: No of teachers in high schools
X16: No of teachers in higher secondary schools
X17: Total literacy rate
X18: Male literacy rate
X19: Female literacy rate

Name of village	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12	X13	X14	X15	X16	X17	X18	X19	Indicators Total Rank	Average Rank
Gulshan Pora (Bagtor)	7	1	6	3.5	12.5	11	1	2	8	8	3	3	6.5	1	4.5	2	10	9	6	105	5.52
Nail Kanzalawan	4	5.5	6	17	5	3	12	12	5.5	5	17	17	3.5	3	3	17	2	3	9	149.5	7.86
Korgbal	25.5	23	19	17	25.5	25.5	25.5	23	19	19	17	17	25.5	24	19.5	17	12	12	10	376	19.78
Mastan Khopri	25.5	23	6	17	25.5	25.5	27	27	19	19	17	17	25.5	15	19.5	17	5	5	3	338.5	17.81
Dawar	9.5	11	19	1	19.5	22	14	16	19	19	1	1	8	5	19.5	1	1	1	1	188.5	10
Badwan Wanpora	4	2.5	6	17	3	6	6	6	3	6	17	17	6.5	2	1.5	17	4	6	4	134.5	7.07
Khandyal	9.5	11	19	17	12.5	16	15	11	19	19	17	17	10	7.5	19.5	17	6	7	2	252	13.26
Markoot	9.5	11	19	17	11	8.5	11	13.5	19	19	17	17	10	11	19.5	17	9	10	7	256	13.47
Shah Pora (Achura Chowrwan)	9.5	5.5	1	17	6	4	2	3	4	3	17	17	10	7.5	1.5	17	10	11	8	154	8.10
Kilshi Pain	1	5.5	6	17	1	2	13	13.5	7	7	17	17	1	7.5	4.5	17	14	15	12	178	9.36
Barnia	14	11	19	17	7	5	17	17	19	19	17	17	14	12	19.5	17	8	8	5	262.5	13.81
Zadigi	19.5	16.5	19	17	18	21	10	9	19	19	17	17	19.5	16.5	19.5	17	17	24	13	328.5	17.28
Dangi Thal	19.5	16.5	19	17	15.5	14	18	21.5	19	19	17	17	19.5	16.5	19.5	17	13	13	14	325.5	17.13
Parana Talel	14.5	11	6	3.5	8.5	13	9	10	19	19	4	4	14	13.5	19.5	4.5	25	26	20	244	12.84
Jurniyal	4	16.5	6	17	10	8.5	20	21.5	5.5	4	17	17	3.5	18	8	17	20	25	17	255.5	13.44
Manz Gund	14	23	19	17	21.5	19.5	23	18	19	19	17	17	14	24	19.5	17	27	28	24	380.5	20
Niru	25.5	5.5	19	17	25.5	25.5	3	5	19	19	17	17	25.5	7.5	19.5	17	3	2	18	290.5	15.28
Wazirithal	19.5	23	19	17	21.5	18	25.5	26	19	19	17	17	19.5	24	19.5	17	16	20	11	368.5	19.39
Badugam	4	2.5	19	3.5	2	7	4	1	19	19	2	2	3.5	4	19.5	4.5	19	16	19	170.5	9

Table 2 continued

Name of village	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12	X13	X14	X15	X16	X17	X18	X19	Indicators Total Rank	Average Rank
Saradab	4	11	19	17	4	1	7	7	19	19	17	17	3.5	13.5	19.5	17	15	14	15	239.5	12.60
Buglindar	25.5	16.5	6	17	25.5	25.5	8	8	1	1	17	17	25.5	19	8	17	23	21	23	304.5	16.02
Gund Gul Sheikh	19.5	23	19	17	17	19.5	24	25	19	19	17	17	19.5	24	19.5	17	21	17	21	375	19.73
Husan Gam	19.5	23	19	17	15.5	15	19	19.5	19	19	17	17	19.5	24	19.5	17	22	19	22	362.5	19.07
Malangam	25.5	23	6	17	25.5	25.5	22	19.5	9	9	17	17	25.5	27	8	17	28	27	25	373.5	19.65
Baduab	19.5	11	19	3.5	19.5	17	5	4	19	19	5	5	19.5	10	19.5	3	18	18	16	250.5	13.18
Gujran	14	23	6	17	14	10	16	15	2	2	17	17	14	20	6	17	24	23	26	283	14.89
Abdullan	14	23	19	17	8.5	12	21	24	19	19	17	17	14	21	19.5	17	26	22	27	357	18.78
Forest Block	25.5	28	19	17	25.5	25.5	28	28	19	19	17	17	25.5	28	19.5	17	7	4	28	397.5	21

Highly Developed Villages (0–10)**:** Gulshanpora (Bagtore), Nail Kanzalwan, Badwan Wanpora, Shahpora (Achoora), Kilshi Pain, Badugam, Dawar

Moderately Developed Villages (11–20): Korgbal, Mastan Khopri, Khandyal, Markoot, Barnai, Zadigi, DangiThal, Parana Talel, Jurniyal, Manzgund, Niru, Wazirithal, Abdullan, Gujran, Baduab, Malangam, Husangam, Gund Gul Sheikh, Buglinder, Saradab

Least Developed Villages (More than 21): Forest Block

20.29%, and 21.99% female literacy rates respectively. The disparity is evident not only at the village level but also in terms of enrollment at various levels of education (Table 3). At the primary and middle school level, the enrollment ratio of boys and girls is almost the same. But as we move towards the higher levels, the difference increases (Table 3). This could be attributed to the high drop-out of female students.

Some villages like Forest Block, Niru, and Abdullan have a gap of 76.94, 52.67, and 39.13 in the male–female literacy rates. Such huge gaps may be attributed to many factors including the lack of infrastructure, lack of importance for female education, etc. These villages lack an adequate number of schools and staff (Table 1). As a result, the males move to the adjoining villages for attaining education while the women are faced with several social and economic hurdles.

Discussion

Rasool et.al. (2016) in their study regarding the comparative analysis of education in various districts of Jammu and Kashmir have categorised district Bandipora in the low developed category. It is a result of educational backwardness in all the 3 tehsils of Bandipora, including Gurez. The total literacy rate of Gurez is 59.17%. It is quite low as compared to the overall literacy rate of the UT which as per 2011 census is 67.16%. The total literacy rate of Bandipora district, however, is lower than Gurez, i.e. 56.2%. Female literacy rate of Bandipora is 44.3% which is very low and almost similar to that of Gurez i.e. 44.3%. A number of factors have contributed to the low levels of educational development in Gurez. The area does not have adequate school infrastructure in relation to its population. The educational disparity has impacted the overall development of people in the area. Not only regional, but there exists a huge gender inequality in terms of education.

Education is a basic human right. However, gender parity in education is far from being achieved at the global level. Many conventions and conferences have been conducted throughout history for achieving this goal. Elimination of All Forms of Discrimination Against Women (CEDAW, 1979) and the Convention on the Rights of the Child (1990)—contain the most comprehensive set of legally enforceable

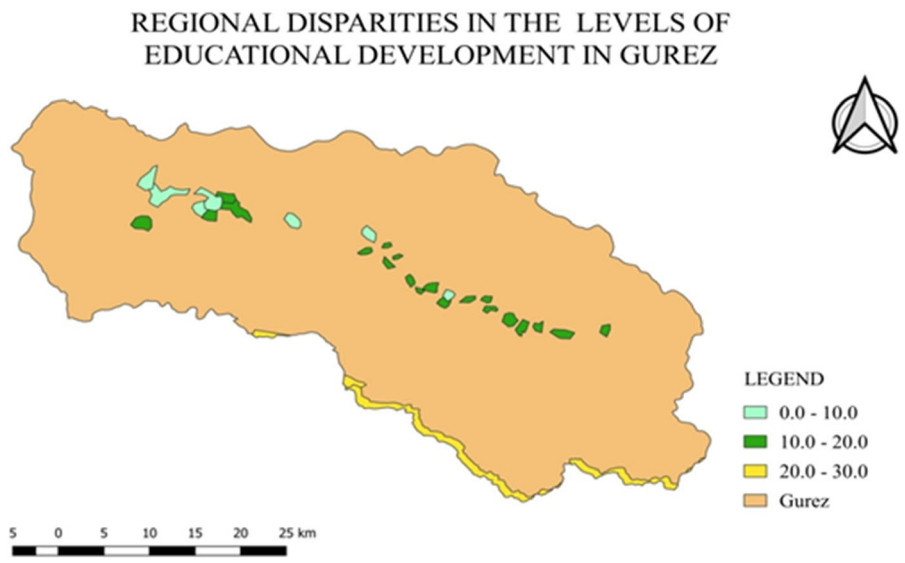

Fig. 2 Levels of educational development in Gurez, Source: prepared by researcher

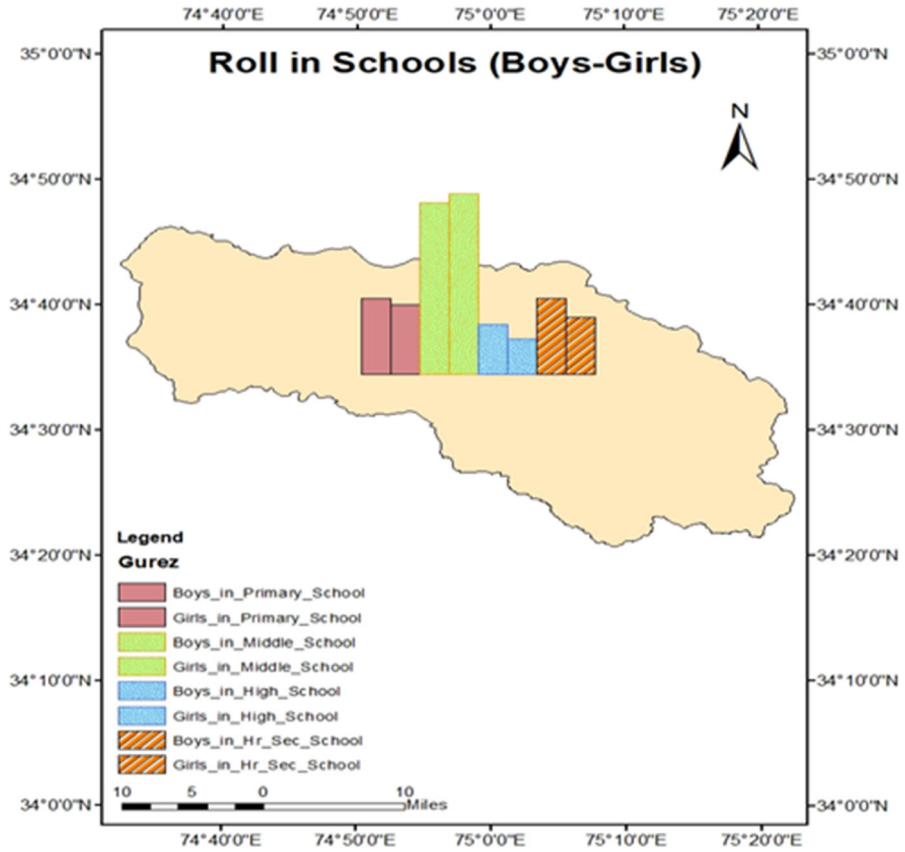

Fig. 3 Gender gap in school enrolment, Source: prepared by researcher

Table 3 Ratio of boys and girls in various educational institutions

%Age of students in primary schools		%Age of students in middle schools		%Age of students in high schools		%Age of students in higher secondary schools	
Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
48%	52%	51%	49%	42%	58%	43%	57%

Source: Zonal Education Office Gurez, Bandipora

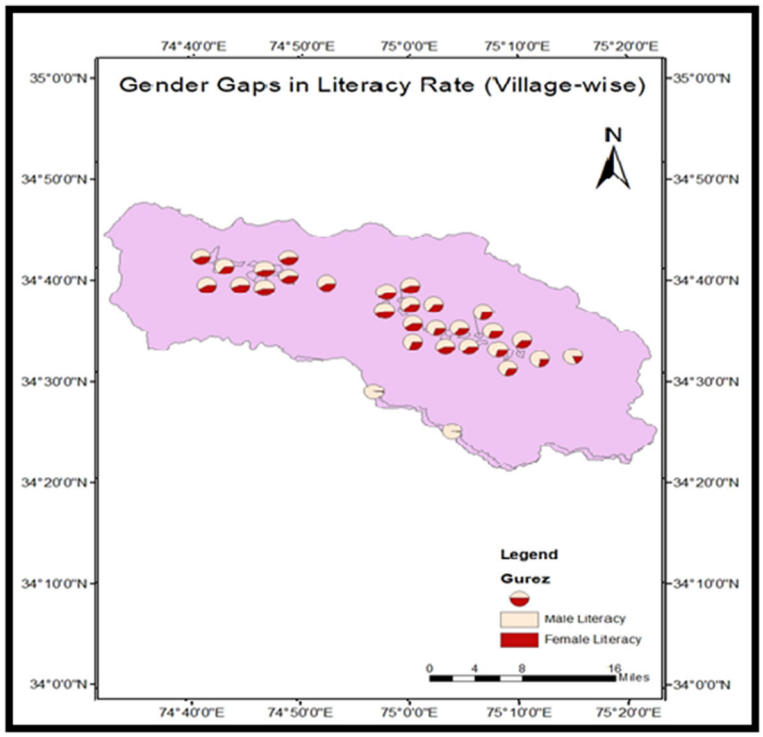

Fig. 4 Gender gap in literacy rate of Gurez valley, Source: prepared by researcher

commitments on the right to education and gender equality. The Dakar Framework for Action and the Millennium Declaration both established time-bound gender equality goals to which all states are committed (EFA, 2003).

Since most of the villages are situated just a few kilometres away from the international border, there are large numbers of army personnel in the area. The families do not find it safe for women to travel large distances outside the village. Also, the community fails to realize the immense personal and social

benefits which female education brings with it. Economically unsound families prefer to educate their male child instead of the female child, owing to the benefits that are assumed to be associated with the male child's education.

Although Gurez is a part of the Border Area Development Programme (BADP) introduced by the Government of India, it still exhibits low levels of development in terms of education. According to the 2011 census, there is a gender gap of more than 30% in the literacy rate of Gurez (Fig. 4). The Village namely Forest Block which figures in the least developed category is mainly dependent on other villages for all its educational requirements. It is because of this reason that the female literacy rate in this village is only 1.82 as compared to the 78.76 of males since women in rural settings are not allowed to move out of their homes over long distances.

Conclusion

Border communities, regardless of their size, are often regarded by policymakers as peripheral in terms of social programs but paradoxically have high priority in terms of national security, a perception that leads to the marginalization of border residents' concerns. National policymakers are preoccupied with the population in their central areas, resulting in the neglect of their border communities. In many situations, national policy is at odds with border needs and priorities. Till now, the main focus of all the border development programs in India has been the safety and security of the borders. The socio-economic development of the border communities has always been a second priority. For the greater part of the last fifty years, the 15,200 sq. km of the land frontier of India cannot be said to have had the peace and security that is essential for socio-economic development. No wonder, therefore, the normal plan schemes were less effective in transforming the economies of the border areas (Planning Commission, GOI, 2001).

Border areas are sensitive in terms of security of people and infrastructure which makes them prone to many problems. Besides, many socioeconomic and environmental conditions negatively influence the mental health of borderlands, including poverty and the lack of resources, drug trafficking, violence, and immigration risks (Flores, 2009). In Jammu and Kashmir, residents of the border areas, migrants, and farmers have been directly affected by the deployment of the army in the border villages resulting in damage to their standing crops due to occupation of their land for mining purposes by the troops. Consequently, many families have been displaced, as the cultivation of such land near the international border becomes difficult. Further, education in such regions is the most affected sector because of the continued ceasefire violation on both sides of the border which results in the closure of schools time and again. Gurez is one of the 44 blocks of Jammu and Kashmir that share international borders with neighbouring countries. The situation of this region is unique mainly because of the sensitive and strategic border it shares with Pakistan and also because of its harsh climate. Access to education is limited and disparity in terms of gender is wide. Women's literacy is directly connected to the economic backwardness of the society. There is a need that the government implements literacy programs in the area with a specific focus on female literacy. There is also a need that higher secondary schools and colleges be opened in the far-flung villages of Tulail sector of Gurez, as the area remains under snow for around six months.

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Data availability Both primary and the secondary data was used during the research.

Declarations

Conflict of interest On behalf of all the authors I as a corresponding author I assure you that we don't have a competing interest.

Consent for publication On behalf of all the authors I as the corresponding author giving u the consent for the publication.

Ethical approval On behalf of all the authors I approve that I have gone through all the ethical and confirm that all the ethics were taken into consideration during this research.

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