

# IMPACT OF THE GEOGRAPHICAL CONDITIONS ON SCHOOLS AND LEADERSHIP IN LADAKH

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## INTRODUCTION

The Union Territory of Ladakh is one of the most remote regions of India. It is classified by geographers as a high-altitude desert, and with settlements ranging from altitudes of 8,000 to 12,000 feet it can be a challenging environment. Ladakh is a large area covering about 59,000 square km and is one of the highest regions of the world, consisting mainly of high plains and deep valleys. Comprising two districts namely Leh and Kargil. It is renowned for its remote mountain beauty and distinct culture. It is bordered by Tibet to the east, the Indian state of Himachal Pradesh to the south, Jammu and Kashmir and Baltistan to the west, and the southwest corner of Xinjiang across the Karakoram Pass in the far north. The largest town in Ladakh is Leh, followed by Kargil, each of which headquarters a district. The people of Ladakh live in villages scattered through this vast area with a population density of 3 person/sq.km one of the lowest in the country. Ladakh is today an area of great geopolitical importance. A majority of Ladakhis in Leh district are followers of Buddhism with a small numbers of Muslims, Hindus and Christians. But in Kargil district majority follow Islam with a small number of Buddhist, Hindu and Sikhs. Due to such intermingling and the presence of pockets of other unique cultures such as the Brokpas and Baltis, the region has a rich diversity of traditions and linguistic variations, as well as a history of tolerance and communal harmony. The climate here is cold and dry with 5 months of warmer temperatures, the rest of the year is severely cold which is why it is called the cold desert of India.



## **CHALLENGES**

**Geographical and climatic challenges**—The geographical terrain and habitation creates unique problems for school education in Ladakh. The environment here is challenging enough being a mountainous area, prone to extreme climate. Challenges from the aspects of human geography such as low population density as well as cultural, linguistic, religious, and political pluralities.

With the education system divided in two parts – government and private education. The latter has been dominant over the years. The increasing numbers of tourists, the ubiquitous military presence, and the conventional development policies enthusiastically pushed by administrators of the region have contributed to a number of rapid changes in the social and economic fabric of the region. The dramatic transformation of Leh from a sleepy collection of farms and shops to a bustling, traffic-clogged, sprawling city, surrounded by archipelagos of cement housing colonies that have sprung up in the desert to accommodate the scores of people relocating from rural communities. The pressure to secure a better education for their children in this fast moving world has led many parents to send their children to Leh, the biggest city of Ladakh. In many cases, a parent or relative will even move to Leh. This migration of people is de-functioning the government schools in their respective villages.

Many areas in Ladakh are remote and hard to reach from the main administrative regions, and are home to a minority group with a separate language and traditional lifestyles - including nomadic lifestyles. Areas like Changthang in eastern Ladakh is sparsely populated by semi-nomadic herding communities and small, widely scattered villages. One of the coldest areas of Ladakh, its vast and difficult terrain, harsh weather, and unique demographics have long posed significant challenges for educators. They are often short of teachers and resources. Some do not even have enough students to operate effectively. Educating the children there is a big challenge as the people move in search of green pastures for their livestock.





Children living in mountainous areas often encounter long distances and steep inclines from their homes to the nearest school, and more often than not they do not have access to public transportation. The community's principle language is different than the official language of instruction. School distance is a key factor in preventing children from enrolling in schools or causing them to drop out. Schools that are long distances from children's homes pose safety and security hazards. Schools are located far away due to difficulties in school construction, the existence of small dispersed communities with many migrating to bigger towns like Leh and Kargil are making schools unsustainable. The image below is of kids traveling to a boarding school in Zaskar passing dangerous routes to attain education.





I (Khursheda) am sharing a personal experience. In 2018 I was posted in a Higher Secondary school which was 120km away from Leh city. It was in the month of November when a sudden heavy snowfall about 2 feet occurred. It was Monday morning and we had to travel back to school after spending the weekend at my house in Leh. We were 4 female staff members who planned to go together, due to the situation my husband decided to drop us there. There were landslides on the road at many places but together we cleared the roads where possible and managed to make our way. Then we reached a village where all the electricity poles had fallen down and were unable to judge the wires under the snow. It was still about 10kms to the school and being unable to drive the four of us decided to go by foot. We walked in 2 feet of snow ultimately reaching our destination freezing and drenched. This experience of mine is just to let you know that often much more riskier challenges have to be faced by the students, villagers and the officials posted in far-flung areas.

It is challenging to run an educational institution especially the primary sector from the onset of October. The temperature drops daily reaching sub-zero temperature till the closure of schools for winter vacations i.e 14<sup>th</sup> of December. With many places lacking heating facilities and poor infrastructure, the classrooms feel like freezers where students take their annual examinations. To tackle that teachers prefer to conduct the examination outside in the sun on open ground but even that does not suffice. One cannot fathom the severity of the winters here in Ladakh until they have experienced it themselves. The many negative impacts of the climate in Ladakh like heavy snowfall, freezing cold and avalanches cause detrimental impact on education. Roads get blocked, water bodies' freeze and maintaining a normal room temperature for survival becomes the top priority.

Some of the other challenges are –

- Economic constraints- Not having enough budget.
- Logistic constraints in the construction of schools.
- Difficulty to recruit teachers for possible new schools.
- Unsustainable salary level for teachers.
- Difficulty in retaining teachers



Our wonderful teacher Sir Rigzen Norbu on the way to Dipling School showing extras ordinary courage to face the challenges in the mid November.

<https://drive.google.com/drive/folders/1uJQGqFVME4eB9oJxQH4NNMctT9GcvQh6?usp=sharing>

**Health Challenges** - Living in a high altitude region brings with it various health problems like-

1. Acute altitude illness: acute mountain sickness (AMS), high altitude pulmonary edema (HAPE) and high altitude cerebral edema (HACE).



The brain normally accounts for 20% of total oxygen consumption. Under the high-altitude conditions of moderate to severe hypoxia, mental performance is impaired. Impairment in codification and short-term memory is especially noticeable above 6,000 m, and alterations in accuracy and motor speed occur at lower altitudes. Studying and teaching under such conditions is not suitable for everyone. Due to the severe climate students and teachers fall sick associating with fewer school days. The cold causes frostbites and chilblains sometimes leading to amputation of limbs. Due to the climate only few crops can be grown in Ladakh. Due to no availability of fresh vegetables and fruits children suffer from anaemia and nutritional deficiencies, these medical conditions hamper child learning.

We come across many students who often suffer from acute anaemia due to lack of seasonal fruits and vegetables. As per orthopaedic doctors 80-90% of Ladakhi people suffer from Vitamin D deficiency leading to muscle pain and problems in joints. Due to low humidity levels, the skin becomes dry, flaky, sensitive and cracked becoming vulnerable to infections.

## **Educational challenges**

Today, there is much awareness about education. Perhaps the most important reason for concentrating on education sector in Ladakh today is that more and more young people in the region are now looking for employment opportunities. If treated in the right manner, education could help Ladakhi youth find meaningful work after finishing their studies.

Much has been done to smoothen the rough edge of the educational process, yet it requires great efforts keeping in view the geographical condition, ignorance of parents, inadequate infrastructure, lack of schooling facilities in remote areas, lack of qualified teachers, etc which are the main impediment in the way of quantity and quality education. Though the entire Ladakh has woken up the importance of education and parents are sending their children to the schools, it is still lagging behind for several reasons.

Some of the major problems before the education system in Leh include its population and vastness of the area. The geographical terrain, climatic conditions and vastness of villages and habitations create unique problems in implementation of schemes like Sarva Shiksha Abhiyaan (SSA) Scheme in the district. Due to the vastness of habitations, the number of out of school

children in each habitation does not fulfil the norms fixed in SSA Scheme for opening of Primary Schools and EGS Centres. The area and population ratio stands as testimony to the thinness and vastness of the population in Leh. The density of population is just three persons per square kilometer, perhaps lowest in the country.

Besides, there are problems in monitoring and supervision. Due to the climatic and geographical conditions, proper monitoring and supervision of implementation of the Scheme under SSA is not possible as there are many inaccessible remote areas. There are many habitations, which are not connected with motor-able roads. Teacher absenteeism is one of the biggest challenges in education system in Leh. Teachers have to be posted in far-flung places in challenging circumstances.



## **ROLE AS LEADERS**

Leadership means different things to different people, by definition it is the ability of an individual or a group of individuals to influence and guide followers or other members of an organisation.

Being teachers we can be leaders for our students and colleagues by helping ourselves and others to do the right things, setting the path and building an inspiring vision. Leadership is about mapping out how to achieve success as a team, it is dynamic, exciting and inspiring. While we set the direction, we must also use our skills to guide the students to the right objective, in a smooth and efficient way. In a school setting, we as leaders can bring everyone together, help students understand what's expected of them and stay passionate about the vision we have for the future of ourselves and others.



This can be done by getting to know each of our students so that we can get a better perspective on the challenges they face. A good leader uses intuitions, leading based on the situation, their personality and values. Some people need to be led more than others. It is essential to take time to understand what's needed also depending on who you're dealing with and what you're trying to achieve.

The best leaders create a shared sense of purpose by clearly communicating their vision and taking people along for the journey. Treating people fairly, giving credit where it's due and taking personal responsibility when things go wrong. Commitment on doing the right thing, accepting the moral duty to everyone you come across. Creating a culture of continual learning and always motivating the people in their environment where they can grow and learn. Strengthen relationships by communicating clearly and respectfully, taking time to build trust and being consistently fair.

A school is the clear reflection of the kind of leadership and faculty it keeps. Hence having a visionary, motivated, accountable, flexible, open minded for self and staffs, negotiation skills, problem solving, passionate for work, courage to communicate reality and listen to others, sense of creativity, seek out honest feedback to know what works well and what needs to be fixed, ethically and morally upright, to abstain students from doing wrong. Such a head on an institution is the key to overall success and efficacy. If the head of institutions take up the initiative, with innovative ways can bring about changes in the school to overcome the challenges to some extent. Some of the best possible ways is to mobilise all parents, villagers and committee members to raise issues and seek solution collectively.

### **Possible ways to combat the harsh environmental conditions**

Ladakh has a large geographical area so apart from the schools in cities the rural schools have huge school compounds located in the heart of the village where there is availability of water for plantation, they could consult with forest/horticulture department to understand suitable plants that can grow there and can be issued saplings for planting. The Union territory administration could suggest the concerned higher authority to include these this task of plantation so it can be sustainable. The staff and students can join such an initiative, which could benefit them by getting food, knowledge and aesthetic beauty creating a better ambiance for education.

An example of one such school where the community got together is the Government Higher secondary school Tangtse which is reachable after

crossing the Changla pass (17585 feet above sea-level). The area was totally barren few years back. The people of that area took the initiative and constructed a residential hostel for students with an NGO (SECMOL). Later the people started planting on that location and there are about 8000 plants now. In the image on the left below you can see the landscape around the school it is dry and barren but inside the school compound it is lush and green.



Also the possibility here is the construction of polycarbonate green houses in each school. The background of students in rural areas is farming. The head of institute can seek help from agriculture department to train students according to new agricultural technology to grow seasonal vegetables in these green houses. The students can prepare compost from available resources helping in rejuvenating the lands they farm on. Involving the students in these activities can greatly benefit them by providing them nutrition, entrepreneurship, knowledge about efficient farming using new methods which can be applied in their house making them more self-sufficient. Community gardens is a brilliant idea which people can start in areas making availability of fresh vegetables easier.





Solar energy is something that can transform the lives of many in Ladakh. There is a huge demand from educational institutions in the Union Territory for improving infrastructure, manpower and quality education but for smooth functioning of schools during winters much needs to be done in terms of construction/modification. A school running on solar power system can be successful in Ladakh. The high cost of setting up one is a major hindrance but it is an investment which can provide great results by combating heating issues in classrooms by maintaining temperature during winters. Regular lighting and not having to depend on power outages.

## **CONCLUSION**

There are questions as to how can technology be used in smooth running of the educational institutions in these conditions of Ladakh region in an eco-friendly way to preserve the fragile environment, ways to retain teachers in far-flung locations, sustainable development of schools etc. There is untapped potential in the educational system of Ladakh, once broken into can bring flourishing results.

It is a challenging location to have a thriving educational system but with united effort from all fronts can change the course of it in the right direction for Ladakh. To conclude what we have tried to portray is the current scenario of the education system in the geographically challenged location that is Ladakh and the role we as leaders play in it.

