



## BUDDHISM, MORAL QUEST AND ENVIRONMENTAL DISCOURSE IN LEH DISTRICT OF LADAKH

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### ABSTRACT :

*Leh, the sub-district of Ladakh region located at a high altitude plateau and much closer to its glaciers and cryospheres which are the lifeline of inhabitants, are more vulnerable to the impact of climate change. For last half a decade Ladakh has started experiencing unprecedented cloudbursts, flash-floods, mudslides and avalanches thereby causing widespread death and destruction. The Trans-Himalayan Ladakh parched on altitude of 3000 metre above sea level, offers a high degree of radiation even at these sub-tropical latitudes. On the other hand the thinness of the atmosphere makes the heat of the sun actually greater than those on other Indian plains. Many locals metaphorically suppose that this is the only place one can be both exposed to severe sunburn and frostbitten at the same time. Climatic chaos, more agreeably, has scientific attribution to global warming and climate change but most of the inhabitants of Leh specifically the Buddhists, associate the eventual causes to karmic retribution and the wrath of an agentive sentient landscape. The Buddhist monastic incumbents are considered as traditional mediators between the human world and the sentient landscape explains supernatural retribution as the result of karmic demerit that requires ritual intervention. Undeniably, influence of Buddhist philosophy for conserving natural resources of the region, have offered a new interdisciplinary lens to capture the interdependency of nature and human existence. In such a backdrop, the present paper explores environmental problems in regard to the agrarian social setting of villages guided by Buddhist rituals and traditions where Buddhism is followed by 66.40 percent of the district population in Leh district of Ladakh region in the State of Jammu and Kashmir.*



**KEYWORDS :** Buddhism, Environment and Rituals.

### INTRODUCTION

Religions around the world have traditionally expressed moral concerns for the environment and its creatures. It is believed that religion and cultural preservation and environmental preservation are fundamentally connected. Since numerous environmental problems have originated from human actions and various discourses of religion might hold suggestive answers for mitigating constant destructions of ecology. Buddhism emphasizes an interconnection between human world and nature thereby idealizing an approach that underlines a vital relationship of human with nature based on this interconnection, the core values of Buddhism virtually suggests ways to protect various facets of environment. Different components of natural ecosystem are constantly being threatened by degrading condition of environment draws serious attention of academia, religious institutions, governmental and non governmental agencies. Buddhists of Leh Ladakh, engage in generating a conscious of inter dependent arising that helps to articulate and address environmental problems at different levels. The

proposed research aims to capture the complex trajectory of interdependency and inter-linkages of Buddhist ritual practices and ecological morals towards nature and environment through the Buddhist perspective of agrarian social life in Leh district.

In academia, the scholars have varied views on Buddhist perspective on nature, ecological ethics and actions taken for environmental causes. Some have focussed primarily on Buddhist *Sutras* and other textual sources recounting Buddhists views on nature and environment and laying conceptual resources for new ecological ethics and some on the untamed course of human action resulting in environmental degradation. Such perspective opens an avenue to explore social life of Buddhist which delineates a desired way of living subsequently eliminating human suffering. Buddhism describes human as an intelligent being among other six different kinds of beings as explained in the wheel of life, a wall painting which is usually painted on outside wall of an assembly hall of every monastery. In this context, human life is regarded precious not only for self-reflective qualities that human posses but also for the tremendous potential to act as a moral agent between human and natural world. However, Buddhist does not identify human as a superior being over other sentient beings and recognized that different life forms in natural world are recognized as an interconnected and interdependent phenomenon. Among other major sects of Mahayana Buddhism existing in Ladakh, Drukpa Kargyud and Drigung Kargyud sects creatively respond towards environmental issues. However, it doesn't necessarily mean the other sects lack concerns. The basic values embedded in Buddhism enables to consolidate the relationship of human beings with the natural environment is endorsed, strengthened and guided. The lineage holders and spiritual masters act as agents between human and natural world. This chapter is reflects the field observation to explore and understand different dimensions of Buddhist ideas concerning environment guided by Buddhist intrinsic values. The core values of Buddhism are reflected in the domain of human action towards environment. A detailed account of the Buddhist rituals and their practices, in fact, provide descriptions on the ethical norms which are significant in the contemporary environmental discourses and concerns.

### **CONTRAST ON ENVIRONMENTAL CRISIS IN LEH DISTRICT**

Climate change has become an unavoidable condition across the world in general and mountainous communities habituated in the Himalayan region. The people of Ladakh region in the upper Himalaya have been experiencing its consequences for couple of decades. The ecology of Ladakh is extremely fragile as it lies in the rain shadow region of the Himalayas. Annual precipitation is recorded not more than 10 to 11 centimetres on an annual average. Folklore of Ladakh describes about the region sustaining for centuries on bare minimum subsistence agricultural production and agricultural activities being carried out in close coordination with climate variations. Geographically, Leh district is located on a high altitude of 11'000 feet and above experiences extreme of climatic conditions dry and exposed sun radiation in summer and below freezing temperatures in winter. Such geo-climatic conditions become the basis for adventure tourism in the district which subsequently impact the local environment and natural resources in many ways. The demands of heavy tourist influx subsequently exert pressure on the supply side to over use and exploit the limited resources available. It is an undeniable fact that the climate change has become the most common phenomenon of debate worldwide today. The effects of climate change such as loss of glaciers, extreme weather conditions that climate scientists had been discussing long back are now being experienced throughout the globe. The Paris Agreement adopted by 195 nations at the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC) in December 2015 included the aim of strengthening the global response to the threat of climate change by "holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels". Data revealed that there has been an asymmetrical decline in mean minimum temperature for the month of November in ten years which indicates that the onset month of winter in Leh district gradually getting warmer. It also shows a constant rise in the average maximum temperature for January month in five years from 2012 to 2016 that is -1.2 Degree Celsius in 2012, 0.7 Degree Celsius in 2013, 2.2 Degree Celsius in 2014, 3.6 Degree

Celsius in 2015 and 4.0 Degree Celsius in year 2016 while the variation in minimum average temperature were recorded as -15.7 Degree Celsius in year 2012, -14.8 Degree Celsius in 2013, -11.7 Degree Celsius in 2014, -12.4 in 2015 and -11.7 in year 2016 respectively. Similarly, the average maximum temperature for the month of February in five years have been rising from 1.7 Degree Celsius in 2012, 4.7 Deg Celsius in 2013, 3.5 Degree Celsius in 2014, 5.7 Degree Celsius in 2015 and 6.8 Degree Celsius in the year 2016 which shows that winter temperature of Leh district has been gradually increasing in past five years posing possible affect on winter precipitation in the form of snowfall resulting in retreating of glacier repository in the district as Mingle broadly noted "Jammu and Kashmir has lost 20 percent of its total glacier mass in past six decades" (Mingle, 2015:397). Studies revealed that the agriculture is one of the important sectors to be affected because of the climate change (OECD, 2014:41) posing new challenges to agriculture in Ladakh (Bhatt, et al. 2015). Agricultural production is highly dependent upon weather conditions of the region being carried out. Climate change over the years has adversely affected the local agricultural practices, pattern and production. Agricultural produce and their growth also determined by the availability and flow of water from glaciers. Glaciers have been gradually retreating because of rise in temperature results to scarcity of water needed for the agriculture in the villages.. In addition to that, the district started experiencing heavy and untimely rainfall leading to cloudburst and flash floods rendering agricultural lands unsuitable for cultivation. Precipitation in the form of snow is much anticipated by local farmers than rainfall. However, for Buddhists of Leh, such climatic events and changes as believed largely, are the result of anthropogenic activities in Buddhist mythology. Religious rituals associated with Buddhist tradition are thus necessitated to appease and bring out a harmony between people and nature and what need to be coherently sanctified as without having a favourable ecological existence in the fragile environment, survival seems challenging.

### WATER AND BUDDHISM

Management of water resources have become a crucial objective for many societies and involved various approaches to understand religious as well as non religious beliefs concerning water resources for sustainability. Chamberlain, (2008: 24) argued that Buddhists' ethical and aesthetic practices rest heavily upon innate relation of human with nature. Those practices could certainly then be used to prohibit against various source of environmental pollution. This concern necessarily includes the Buddhist way of managing water resources by carefully adapting techniques of governance without harming the environment. Apart the vital source of life sustenance quality, water is associated with significant ritual initiations and offerings in Buddhism. In Buddhist temples, prayer rooms and households, ritual of offering water to Buddha and *Bodhisattvas* has traditionally been practiced throughout in the Tibetan and Ladakh regions for centuries. This ritual practice is called *Yonchhap* in Tibetan and is offered in a set of seven bowls every early morning to generate devotion to spiritual masters and attain merits in life.

As part of the routine, prayer room is well cleaned before offering. Incense is burnt and bowls are extensively cleaned, a jug containing clean water is brought in to serve few drops in each bowl chanting a mantra pronounced as *Om Ah Hung* to enhance the virtue of offering and aligned in a row, maintaining a grain size gap between each bowl is recommended as believed, one may be deprived of one's guru if gaps are widely maintained and one may develop idleness if its close than recommended. A general verse read by Buddhist during offering *Yonchhap* can be read as under with meaning in English.

The virtue of this offering prayer indicates the essential elements to determine purest form of water that is offered to the Buddhas and their retinues subsequently affirms the Buddhist's interdependent theories of co-existence of life forms. This ritual of offering water is practiced everyday by all Buddhists in Leh although verses recited are varying among Lay people and Monks in monasteries. It is observed that not every Buddhist in Leh is able to read and understand Tibetan as most of the scriptures of Buddhism are written in Tibetan language. However, their devotion is rooted and is consistent. This belief system lays enormous emphasis on water as one of the essential elements. The ritual of *Yonchhap* offering is a significant Buddhist practice that is believed to generate generosity

and selfless living at the conscious level. It can be deduced that ritual of *Yonchhap* offering is not only a guiding principle to preserve water in its purest form but also enable the believer with certain ethical codes to prevent water resources from contaminating.

### REALM OF LHU AND RITUAL CLEANSING

A sense of virtual connection between the world of spirits and human is observed in traditional Buddhist communities. The sense of interconnectedness of everything is based on the fundamental theories of Buddhism. In Buddhist mythology and folklore, presence of multitude spirits, demons and Gods *Tib. Lha-sRin-De-Gyad* (eight classes of Gods and *Nagas*) in the natural landscape is commonly believed throughout Ladakh. Fynn, (2015) suggests that the origin of *Lha-sRin-De-Gyad* to be traced to Yarlung period of 7<sup>th</sup> to 9<sup>th</sup> century where a classification on the basis of *Lha-Lhu-De-Gyad* was found in manuscripts discovered during 20<sup>th</sup> century in Library cave at Dunhuang of Gansu province in China. According to the traditional belief, *Lha sRin De Gyad* were subjugated by Guru Padmasambhava through tantric adept. The citation of *Lha sRin De Gyad* is mentioned in the Yamantaka tantra among the 19 volumes of tantric teaching of Buddha out of 108 total translated Sutra and Tantra volumes. Continuing from early traditional practices of Buddhism, (Hattaway,2004:53) while studying the Changpa inhabitants of Ladakh informs that *Lha* (Spirit) and *Lhu* (*Naga* Serpents) are important aspects of everyday life. Since the realm of *Lha* and *Lhu* are not visible to human eyes, it evokes an awe inspiring presence in human life and activities. In this regard, any unfavourable event including weather, illness and death are considered a result of an objectionable act believed to have committed by human action.

*Lhu* is identified as *Nagas* in Hindu pantheon. In Buddhist mythology, it is believed by that *Lhu* usually resides underneath earth surface and places such as rivers, lakes and natural springs. They can be munificent to reward human with treasure and wealth. However, if infringed upon and pollute their abodes, results are thought to be disparaging to human inhabitants. Disappearing spring water, retreating glaciers, untimely rainfall are some of the consequences that the Buddhist believe to have caused by *Lhu*. Ritual interventions such as *Lhutor* is initiated and offered to these mystically invisible beings to re-purify and remedied human caused pollution to their abodes for propitiating and restore the availability of water in springs and streams. A small rectangular structure with a base and conical or spherical top locally called *Lhu-bang* is erected near a spring, as those areas are usually clean and uncontaminated are considered favourable by *Lhu* to be dwelt. *Lhubang* marks the presence of *Lhu* in nearby area, aware the human inhabitants to maintain the hygiene and sanctity of the spring area. This in turn provides a perennial water supply to the community. Such religious rituals are necessitated reasonably in the context that Leh district having a limited annual precipitation of not more than (102 mm) including winter's snowfall, precariously dependent upon limited availability of water resources. Villages in Leh district have recently started facing scarcity of water for carrying out agricultural activities. It was due to the less snowfall in winter from December 2017 to February 2018 that villages encountered meagre availability of water in the streams during the months of May till mid of July 2018. Many of the elders in the eight sample areas of the study revealed that the environmental degradation is due to the exploitative traits of humans and degrading faith in religious persuasive values. As believed that such critical situations could only be dispensed by reviving traditional way of life and upholding the rituals for restoration of deprived state of environment. In this sense, Mann (Mann, 2002:236) noted that people in Ladakh not only make a judicious use of water but also worship its sources.

### SADAK AND COMMUNITY

In every village of Leh district, Buddhists lay a great emphasis on the spirits of water *Lhu* and earth *Sadak* before any construction project is carried out and performs associated rituals to propitiate their favour in sharing the place of construction with humans to prevent any untoward incident with the person him or herself or anyone in the family and livestock, to secure timely precipitation for an appropriate harvest and to protect from droughts, epidemics and any natural disaster. *Sadak* extensively shares the realm of *Lhu* but dwell on earth spheres including mountain, rocks and land surface. Following the Tibetan Buddhist's tradition, through the method of geomantic calculations, the

correct position of *Sadak* is determined for preventing any harm during the construction activity. This calculation is usually performed by a learned monk to acknowledge the move around periodical cyclic position of *Sadak* infringing which can cause serious health problems, death and disaster that human normally considered natural to the village as a whole. Ritual of *Sadak Dondol* also called *Bhupati Vidhi* or *Puja in Hindu* is carried out to propitiate favour from *Sadak* before initiating any construction work, blasting activities on mountains, cutting down of an old tree and so forth. The folklores in Leh describes that erecting stone engraved images of Buddha and *Bodhisattvas* near spring resources were commonly practiced to mark the area as sacred and to prevent spring resources form contamination.

### ICONOGRAPHICAL EXPLORATION FOR ENVIRONMENTAL CONCERN IN BUDDHISM

Images and murals are normally seen on walls of every monastery in Ladakh. Different iconographies representing Buddhas, *Bodhisattvas*, wrathful and protective deities, important spiritual masters and incumbents, *Mandalas*, wheel of life, *Khen Lop Chos Sum* and other images containing messages based on Buddhist philosophy that are interpreted variedly in different Buddhist countries. However, the intent and essence remain same throughout. The iconographical murals in Buddhism are manifold, complex and abstract. The pictorial representations symbolically make sense of the existential world and mystical realms as interpreted in Buddhist tradition. Following the Tibetan monastic establishment, the walls of monastery in the study areas are decorated with murals and colourful paintings. Among number of iconographies variedly painted in monastery and shrine of the study areas, the most commonly found few are of Buddha's biography, four cardinal kings *Tib: Gyal Chen Zhi* usually painted on outside wall of assembly chambers, wheel of life *Tib: sRidpa Khorlo*, four harmonious brothers *Tib: Thunpa SpunZhi, Khen Lop Chos Sum* representation of three important founders of Tibetan Buddhism in 8<sup>th</sup> century and painting of six symbols of longevity and prosperity *Tib: Tsering Tukkhor* or *Tsering Namtuk*. The painting of *Tsering Namtuk* depicting six symbols of longevity suggests an approach for living harmoniously with nature and ecology through the message it carries in the story. Monks of the monastery are well versed about the story of *Tsering Namtuk* and its significance.

Tsagaan Uvgun, the learned old holy saint usually portrayed having white hair and streaming whiskers surrounded by six traditional symbols of longevity including the saint himself portrayed holding a rosary depicts continuity, the peach tree believe to be having high medicinal values, the conch shaped unchangeable mountain possessing properties of geomancy, the perennial stream that originates from the mountain believed as the nectar of immortality, the pair of crane, believed to be long lived birds symbolizes happiness and trust and a pair of deer portrayed are the symbols of immortality. Cumulatively, the portrayal symbolizes living harmoniously with nature and surrounding which each entity of life is untroubled and respected by other sentient. However, a different narrative about the origin of *Tsering Namtuk* is observed in different countries including China, Mongolia, and Tibet. Nevertheless, it's symbolic essence and intent remain same throughout. Ladakh is influenced majorly by Tibetan artefacts in context of Buddhism and recognized China was once a land of *Mahachitta* before communism arrived in the geo-political region that produced many learned Buddhist scholars who travelled to India for religious studies at Nalanda are believed to have carried the narration of *Tsering Namtuk* from China to India.

### SACRED FLORAS IN LEH

Ladakh is rich archive of restorative and aromatic plants having tremendous adaptability to extreme of climates and biotic pressure. It is assessed that nearly 1,100 different types of vascular plants and species, 23 are commonly found in Ladakh. Ladakh is categorized under Alpine and high Alpine zones which are covered with annual herbs, perennial herbs and stunted shrubs. The vegetative development begins at the onset of summer while temperature leads snows to get softened to provide sufficient and retain its vitality till the end of September. The mountain inclines meadows and elevated pasturelands have variety of wild flowers of cold desert barren plateaus. The vegetation of the cold Trans-Himalayas desert comprises unparalleled group of plants which are suitable to adapt in extreme

of climates. About one third of the identified plants are used for medicinal purpose by *Amchi* (Traditional Tibetan *Vaidya*). Over a hundred of other species are listed endangered due to over extraction for fuel-wood, habitat degradation and loss (Reach Ladakh Report: 21 August, 2014). The floral diversity in Ladakh was recognized at large due to their medicinal values. Scientific explorations are being carried out for protection of scarcely and rare found plants. Kaul noted that studies have revealed the under process consolidation of ethnomedicinal properties of more than 350 plants in Ladakh which have are identified as a significant part of Himalayan folk medicine besides practiced as home remedy for centuries throughout Ladakh (Kaul, 1997:20). Many plants besides its medicinal values also serve for religious ritual purpose as observed by Bhasin in his work titled *Amazing Land Ladakh: Places, People and Culture*, juniper plant locally known as *Lha Shing Shukpa* are installed in a structure on the rooftop of a household called as *Lha-tau* and replaced every year during Losar (Ladakhi New Year). It is this essence that associates Juniper plants with *Lha*, suggests every Buddhists to embed a sense of respect towards Juniper. It is obligatory for *Phaspun* to construct and look after the *Lhatau*. Major part of the Juniper is generally arranged by the main household and partial arrangements are contributed by the *Phaspuns*. Barely, no one is authorized to touch each other's *Lhatau* other than the family member themselves and *Phaspuns* (Bhasin, 2006:95-96). *Phaspun*, as defined in the context by Mann 2002: 238 in his work *Ladakh Then and Now: Cultural, Ecological, and Political*, is a pattern of social grouping, beyond family line bind up together by a common deity and is necessarily upshot of the ecological condition of the region.

**TOURISM AND IMPACTS ON LOCAL ECOLOGY**

Ever since Ladakh was connected by air with rest of the country, the boom of tourism started taking place in Ladakh. Kapadia, stated that Ladakh was opened for tourism in early 1970s, (Kapadia, 1998:252). Ladakh region has traditionally been an agrarian society based on traditional subsistence production until other forms of market economy established in the social milieu. With the emergence of market economy and tourism industry led to emerge a sparse differentiation of occupation and labour market, paving way for modernization that has long been relegated by traditional Ladakhis. In this sense, Ladakh, most specifically the Leh Town, which is the centre of tourism in the Trans Himalayan cold desert region, started facing enormous pressures on environment. The theorem of Giddens’ paradox best fits in these conditions. It stated that “we are delaying on responding adequately to climate change until an associated obvious major calamity occurs and it will be too late for us to return and fix the greenhouses gases which we have left out in the atmosphere while driving by our developmental plans” (Giddens, 2009:165-166). The effects on environment of Ladakh were noted then by Sharma, in form of uncontrolled expansion of temporary accommodation and proliferation of curio stalls around the popular centres straining the existing resources (Sharma, 2003:33) but the intensity of the impact has pitched unimaginably over the decade.

**Table: 4.4**  
**Arrival of Tourists in Leh District 1997-2016**

Year	Indians	Foreign	Total	Variations
1997	4011	12,948	16,959	_____
1999	2110	10,238	12,348	-4611
2001	4260	15,554	19,814	+7466
2003	13,031	15,362	28,393	+8579
2005	13,431	24,536	37,980	+9587
2007	22,007	28,178	50,185	+12,205
2009	48,517	30,578	79,087	+28,902
2010	55,685	22,115	77,800	-1287
2011	1,42,829	36,662	1,79,491	+1,01,691
2012	1,40,460	38,510	1,78,970	-591

2013	1,06,559	31,143	1,37,702	-41,268
2014	1,21,996	59,305	1,81,301	+43,599
2015	1,16,887	29,614	1,46,501	-34,800
2016	1,97,693	38,005	2,35,698	+89,197

**Data Source: Tourists Reception Centre, District Leh**

Leh town has been dramatically changed with increasing public and tourist facilities and infrastructures and market avenues. As a result, huge tourist's infrastructure came up in the form of hotels, restaurants, guest houses and agencies in Leh town and today it has become a hub of tourists, officials, and business proprietors and migrant labourers from Bihar and Nepal and from other part of the state. With the increase in the influx of tourist in the region from different parts of India and globe, the people of Leh began to find new lucrative avenues of income. For the first time in the history of Ladakh, a massive programme of economic reconstruction and development was taken in hand with a view to available fruits of progress to the people in far flung area. At the material side of development no doubt, tourism bringing in an intensive foreign exchange to the local economy but the chunk of pressures on local ecology and environment that is coming in along cannot be ignored. All these infrastructures including hotels, guest houses and restaurants are engaged in an unstoppable competition to maintain western standard of services requires a heavy demand of water supply which is incalculably more than the need of local inhabitants. Requirement of water for number of tourist arrived is higher than the district total population which means uneven distribution of communal water often leads to disputes besides improper planned of drainage and waste subsequently polluting land and water. Some hotels were noticed having sewage system connected to streams. Moreover, mineral water are the basic requirement of tourist throughout their travel itinerary, leaves behind huge chunk of plastic and this situation get worsen in the absence of waste management mechanism in the district but district administration has recently come up with a solid waste segregation centres at few important locations in Leh district where it was recorded a collection 16 to 18 tonnes of waste from the town itself that during the tourist season from May till August and in the bend over season from November till February season the figure drastically came down to 3 to 4 tonnes.

Tourist usual itinerary include visiting places within tour circuits of Leh district, visiting monasteries, trekking into mountains and like results in heavy emission of harmful gases and particles in the fragile atmosphere. Diesel engine cars emit serious harmful particles in the atmosphere since combustion rate decreases at higher altitude. Army diesel trucks are worst in the list and the absorption rate is too low as vegetation is meagre in the district. Natural habitats of wildlife are disturbed and threatened because of frequent human intrusion in their dwelling places.

**CONCLUSION**

It is interesting to have noted the presence of forces which are believably the guardian of land and natural environment associates itself with the Buddhist's pantheon, human activities are thus expected to be driven in accordance with harmony to nature, consequences could be destructive if human encroach and infringe nature's law and disturb ecological balance. Over centuries, farmers in Ladakh have evolved self sustained farming systems despite scarce resources and climatically challenging environment. This study was carried out in an attempt to understand the complex interplay of Buddhist values to solve environmental issues on the one hand and village occupational dependence on agricultural livelihood on the other. Since many environmental problems have stemmed from human activity, it follows that religion might hold some solutions to mitigate destructive patterns.

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